Multinational Corporations

This book extends current macroeconomic theories of international production by examining the emergence and evolution of multinational corporations (MNCs) from a broad range of developed and developing countries. *Multinational Corporations* presents case studies of the emergence and evolution of MNCs based in 11 developed and developing countries of widely divergent patterns of national development.

Paz Estrella Tolentino’s research agenda was to determine whether variations exist in the pattern of the early stages of outward foreign direct investment (FDI) across different countries, and in their developmental paths over time that are determined by distinctive patterns of national economic development in each country. The countries covered include Brazil, Germany, Hong Kong, Japan, Singapore, South Korea, Sweden, Switzerland, Taiwan, United Kingdom and the United States. This book provides a comprehensive theoretical framework on the emergence and evolution of MNCs from a macroeconomic perspective based on the categorization of MNCs in three groups in accordance with distinctive patterns of national economic development of their home countries: resource-abundant countries, resource-scarce large countries and resource-scarce small countries.

*Multinational Corporations* presents a radical conceptual framework in which to analyse MNCs from a wide range of countries and also promotes the advancement of current knowledge of an important aspect of international business history.

Paz Estrella Tolentino is Lecturer in International Business at the School of Management and Organizational Psychology, Birkbeck College, University of London. Her previous book, *Technological Innovation and Third World Multinationals*—based on her PhD dissertation which received the 1989 Academy of International Business Richard N. Farmer prize for the best PhD thesis on international business—laid the foundations for the elaboration of a concept of stages of development in explaining international production.
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Multinational Corporations

Emergence and evolution

Paz Estrella Tolentino

London and New York
To Alexandra Maissa Farrah T. Soumati with love
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Foreword

Paz Tolentino has written a worthy follow-up book to her excellent first manuscript, *Technological Innovation and Third World Multinationals* which was published by Routledge in 1993. In one sense this volume has its origins in her continuation of a critique of John Dunning’s notion of an investment—development cycle of countries. This is a project that she and I had discussed and initially worked on together in Reading, but which she has now taken very much further, to the point at which a new range of ideas has emerged to enable her to generalize more accurately and meaningfully about the international direct investment position of countries. She is to be congratulated on the sterling effort with which she has collated such a wide breadth of evidence and organized it coherently, so as to succeed in deepening our understanding of the variety of evolutionary paths that foreign direct investment (FDI) may follow at the national macroeconomic level.

The essential idea of the investment—development cycle is that the stylized or ‘typical’ path of a country is that inward FDI takes off and enhances the earlier stages of development (so the net outward investment [NOI] position of countries becomes steadily more negative as GDP per capita rises), while past some point outward FDI takes off too and grows in accompaniment to the later stages of economic development (so the NOI position becomes gradually more balanced again, and ultimately becomes positive in countries that have attained the highest levels of GDP per capita). Thus, as shown by Dunning, if we plot the NOI position of countries against their GDP per capita in a cross-section from 1970s data, we observe a ‘J-shaped’ schedule. Paz Tolentino showed in her previous book that the shape of this function changed in the 1980s, since outward FDI tends to come now at an earlier stage of national development. Third World firms engage in outward FDI at an earlier stage of national development and experience a faster transformation in the industrial structure of this outward FDI, although it has still become easier to distinguish countries at different levels of development by the industrial composition of their outward FDI than by a simple calculation of their NOI position. As development rises, the industrial structure of outward FDI is widened and evolves towards more complex types of activity.

The explanation of the greater speed of corporate internationalization depends on two elements—an account of a change in the international economic environment, and an analysis of the accumulation of technological competence in firms at varying ages or degrees of maturity. The first of these can be taken from Ray Vernon’s discussion of the growth of FDI with the fall in transport and communications costs in the post-war period, together with the more recent emergence (from the 1970s onwards) of a new techno-economic paradigm based on new organizational forms linked to new information and
communication technologies as suggested by Chris Freeman. The second part can be derived from the modern evolutionary theory of technological change as a localized and firm-specific process, as pioneered by Richard Nelson and Sidney Winter. Firms build up their technological competences or what are termed in the international business field (following John Dunning’s eclectic paradigm) ‘ownership advantages’, through locally differentiated learning activities.

Thus, in the 1980s those of us that continued to insist on the concept of ownership advantages as a condition for international corporate expansion reformulated the concept more precisely. Critics of the concept had focused their attack on an interpretation of Hymer’s earliest discussion of ownership advantages, as a net cost advantage of foreign-owned over indigenous firms in the relevant local market (and this is still often the version that critics prefer to disparage today, seemingly unaware that the discussion, like the real world, has moved on!) The first and obvious revision is that ownership advantages must be thought of in relation to the international competition mainly from other multinational corporations (MNCs) rather than relative to domestic companies in a particular host country. Today MNCs are generally competing with one another in international markets, they are usually not in the earliest stages of internationalization and their investments are not all of a local market-oriented kind (unlike in Hymer’s case, in which he had addressed the more specific question of why firms initially go abroad and begin to engage in FDI). Second, and more importantly in the present context, innovation and hence innovative advantages are differentiated and relative concepts, not indicative of some notional technology frontier. All surviving MNCs have some distinctive competitive edges, and it is these differentiated firm-specific strengths that constitute each firm’s ownership advantages rather than some overall absolute cost advantage. Hence, Third World MNCs may have as well ownership advantages especially in operating in certain kinds of less developed conditions, and with a change in techno-economic paradigm some of them have been able to upgrade these advantages more rapidly than they otherwise would, encouraging and facilitating a faster internationalization.

Paz Tolentino has now returned to a further issue that she had previously to leave to one side. This issue is that the investment-development cycle was an interpretation of cross-sectional evidence in search of a time series framework of analysis. The argument that countries’ investment positions evolve faster than before is a special case of the more general contention that each country follows some nationally specific path in its FDI, and there is no reason to believe that each country moves along a similar J-shaped path in its NOI position. Indeed, we know that countries like Japan and Korea have witnessed major take-offs in their outward FDI without much prior inward investment, whereas the take-offs in outward FDI in many European countries such as France or Germany had been partially a response to the earlier penetration of US inward FDI, and their consequent interaction with US MNCs. At one level it is fashionable to attribute such variations to policy differences, but the formation of the policies themselves and the way in which they have worked depend very much on the national institutional environment of countries, which varies greatly.

Differences in institutional systems and in the related industrial structures of countries
may be dependent on a range of variables, but two that seem to matter most are the national degrees of resource availability or scarcity, and country size. Paz Tolentino has used these variables to construct a taxonomy of country types, and to organize her voluminous material in a fruitful way. She demonstrates here quite compellingly that the variation in national paths of FDI that we observe can be explained in good measure by whether a country is resource-scarce or resource-abundant, and whether it is large or small. Her book has taken us a good way forward in understanding how the industrial structure of FDI evolves in these different types of country, and on how the form of interaction between inward and outward FDI may (or may not) influence the accumulation of ownership advantages on the part of domestically owned firms, and hence the nature of their own internationalization. I am happy to commend this book to anyone interested in deepening their appreciation of the variety of historical determinants that have shaped and are shaping the growth of international direct investment and the modern multinational firm.

John Cantwell
Preface

Intention

In 1991, John Cantwell argued that there are four frameworks in which to analyse the major theories of international production: the microeconomic approach which examines the international growth of individual firms or multinational corporations (MNCs), the mesoeconomic approach which considers the interaction between firms at an industry level, the macroeconomic approach which studies broad national and international trends, and the eclectic paradigm which is not an alternative analytical framework but an overall organizing paradigm which incorporates elements from all the other three types of approaches (Cantwell, 1991). The various theoretical strands comprising the macroeconomic development approach to international production are the earliest version of the product cycle model (PCM Mark I) of Vernon (1966); the integrated theory of trade and direct investment of the Japanese economists, Kojima (1973, 1978) and Ozawa (1982); the concept of an investment-development cycle and path of Dunning (1982); and the stages-of-development approach associated with Tolentino (1993) and Cantwell and Tolentino (1990). However, although the origins of the more modern macroeconomic theories of international production could be traced to the mid-1960s with the formulation of the PCM Mark I, the current stage of development of this set of theories is regarded to be more rudimentary by comparison to the microeconomic or mesoeconomic theories whose origins can be traced similarly to the 1960s. This is owing partly to the demise of the PCM as an analytical tool to explain the more balanced process of technological competition between the United States, Europe and Japan over the last 35 years away from the previous technological hegemonic role of the United States during Pax Americana (Giddy, 1978; Vernon, 1979; Tolentino, 1993) and the more industry-based as opposed to country-based theory of trade and direct investment developed by Kojima couched in the neoclassical Hecksher-Ohlin-Samuelson theory of trade. In addition, although the advancement of more general macroeconomic theories of international production began with the elaboration of the concept of an investment-development cycle of international production by Dunning (1982) which relates the level of inward and outward foreign direct investment (FDI) and the national stage of development of home and host countries, empirical evidence that I had gathered in my PhD thesis on the general trend of internationalization of firms since the mid-1970s showed that this formulation required some qualification (Tolentino, 1987). The refinement of the concept by Dunning to denote the presence of an investment-development path which considers
that both the level as well as the character and composition of the outward FDI of a country’s firms vary with the national stage of development has been extended since by John Cantwell and myself to consider the developmental course of the outward FDI of countries over time (see Cantwell and Tolentino, 1990; Tolentino, 1993). Indeed, the growth of MNCs from a historical perspective shows a developmental course in the pattern of outward FDI from an initial emphasis on trading, resource-based or simple market-seeking investments where the competence of leading national firms is embedded in basic engineering skills, complementary organizational routines and structures. Over time as industrial development of home counties proceed and as their firms gain maturity as MNCs, there is the gradual progression of their outward FDI towards more sophisticated forms of manufacturing and services activities that embody greater technological and organizational complexities. Indeed, the dominant sectoral pattern of outward FDI at the global level had been associated with primary commodity production before 1939, and only since the Second World War did outward FDI in manufacturing and services come into its own in a major way, bringing forth the growth in international technological competition in the industrialized countries and the global integration of FDI.

Such an evolution describes the growth of the mature MNCs of Europe and the United States over the last two centuries. The evolution of Japanese MNCs since the Second World War, on the other hand, has been compressed into a much shorter time span. Investments in resource-based activities and import substituting manufacturing in South East Asia led the way in the 1950s until the early 1970s, but since the late 1960s the interest of Japanese firms shifted to more sophisticated manufacturing production in Europe and the United States (Ozawa, 1991). Although MNCs from the Asian newly industrialized countries are nowhere near as technologically advanced as the more established MNCs from Europe and the United States as well as the modern Japanese MNCs owing to the less advanced stage of the industrial development of their home countries, the lower forms of technological competence of their leading national firms and their lack of maturity as MNCs, the sectoral complexity and geographical scope of their international production activities are evolving much more rapidly than that of the more historical home countries of FDI. The main reason for this is the general trend towards the internationalization of business since the mid-1970s which has been common to firms of all countries. Domestic enterprises from the developing countries have, in general, embarked on international production and became MNCs at an earlier stage of their development than industrialized country firms (see Tolentino, 1993 for further support of this argument).

Despite the general trend towards the internationalization of business which has been common to firms of all countries and the more rapid pace in the emergence of MNCs from the newer home countries and in the evolution of the pattern of their international production activities, it has become increasingly apparent that the pattern of the emergence and evolution of MNCs are also determined by factors other than the stages of development or maturity of countries and firms. In particular, there seem to be variations in the pattern of the early stages of outward FDI across different types of home countries as well as their developmental paths over time that are determined by distinctive patterns
of national economic development. Since each country or group of countries has a unique pattern of national economic development owing in part to different endowments of natural resources, different sizes of the domestic market and different types of development path pursued in achieving industrial development, the developmental course of international production in each country or group of countries is likely to be unique and differentiated. Thus, any effort to advance the modern macroeconomic theories on the basis of general principles must be comprehensive in its attempt to explain the emergence and evolution of MNCs from a broad range of home countries. This is the major challenge to research that I have chosen to face at the dawn of the twenty-first century and the third millennium. In advancing a conceptual framework to analyse the emergence and evolution of MNCs from a broad range of countries over the course of more than two centuries, the research also hopes to advance current knowledge of an important aspect of international business history—the growth and evolution of MNCs.

Background

The initial idea behind the major research that eventually led to the production of this book was nurtured at the start of my academic career as Lecturer in International Business at Birkbeck College, University of London, at the beginning of 1995. My research plan at that time was far less ambitious by comparison to the major research that I ended up pursuing. At that early stage, my objective had been simply to advance further the concept of stages of development of international production that I had elaborated in my first book through an analysis of the dynamic and developmental process of international production or the way in which stages of development or maturity of countries and firms determine the pattern of international production of MNCs based in developing countries—a body of research that I had already worked on previously to a considerable extent. On that basis, I completed a paper in the spring of 1995 with the title *Third World Multinationals: Emergence and Evolution* which was accepted for a competitive session at the Annual Meeting of the Academy of International Business. The conference paper also formed the basis to solicit a contract to publish a book with the same title from Routledge—a contract that I obtained successfully in the spring of 1995.

There have been two major factors that determined the direction of research since. The first factor was the realization fairly early on that a confinement of the research to the emergence and evolution of MNCs based in developing countries would have limited use if this was not analysed in relation to that of the more mature and far more significant MNCs based in the developed countries. Not only do MNCs based in developing countries account for less than 10 per cent of the global stock of outward FDI in 1998 (UNCTAD, 1999), but the delimitation of the empirical evidence to this narrow group of countries would preclude the elaboration of a comprehensive macroeconomic theory of international production on the basis of general principles. The second factor was brought about by the opportune time in 1995 when John Cantwell was preparing a research paper.
with the title *Globalization and Development in Africa*, in which he argued that variations in the early stages of *inward FDI* across different types of countries and their developmental paths over time are determined by distinctive patterns of national development. This idea was applied by Cantwell in the context of mapping the potential development paths of inward FDI in Africa (see Cantwell, 1997).

The combination of these two forces dictated the direction of the research since 1996. The research began to build on Cantwell’s idea from the perspective of *outward FDI*. In particular, the research sought to explore the possibility of the more general application of the proposition that patterns of national development (or industrial development) tend to be associated with equivalent phases of MNC expansion from a broad range of countries. The pursuit of this research agenda required that the empirical evidence be gathered on the growth patterns of MNCs from a significant number of countries that collectively would cover the three distinctive patterns of national economic development envisaged of home countries: the resource-abundant countries; the resource-scarce large countries; and the resource-scarce small countries. After a process of careful selection, I decided to focus on 11 countries to include Brazil, Germany, Hong Kong, Japan, Singapore, South Korea, Sweden, Switzerland, Taiwan, United Kingdom and the United States. During the course of the research, I was always tempted to add more country case studies and, in particular, to include the study of the emergence and evolution of MNCs from the Netherlands or France; but on the other hand I thought that I may already be driving home the point far enough with the existing 11 country case studies and thus to further belabour the point would be totally unnecessary. Besides, I would like to leave some aspect of the research open for the future.

With the pursuit of a more ambitious research agenda, it had become rapidly obvious that the conceptual basis of the research would encompass the macroeconomic theories of international production as well as international business history, the latter in both its more traditional micro-economic perspective and more modern macroeconomic perspective. The use of both perspectives has been quite useful in the conduct of the research. The growth and evolution of MNCs from a particular country has often been more clearly illustrated by the analysis of the histories of particularly prominent MNCs based in that country where this was warranted.

In 1996 I completed another paper with the title *Patterns of Growth of Multinational Enterprises: The Case of the Resource Scarce Large Countries* which was accepted for a competitive session at the 22nd Annual Conference of the European International Business Academy.1 With some aspects of the growth of MNCs based in resource-scarce small countries and resource-scarce large countries set in place in these two seminal papers, the research in 1997 and 1998 focused on analysing the growth of MNCs based in resource-abundant countries.

As the new year dawned in 1999, I made a firm resolution to shift the major research into high gear and to realize the production of the book within a year. First, I informed Routledge of an important revision of the title of the book to *Multinational Corporations: Emergence and Evolution* to reflect more accurately the more comprehensive research that I had embarked on. Secondly, I began to pursue the research with some vigour and haste country after country, repeating the almost never endless and exhausting process of
research, drafting, revision, editing and polishing chapter after chapter in the period between January and November 1999. Although the two seminal papers that I prepared in 1995 and 1996 enabled me to have a first draft of seven chapters, the drafts were far from being acceptable as proper book chapters and had to be improved considerably by further research and various rounds of drafting. Those chapters in their final state represent a significant progression far beyond recognition from the seminal papers from which they emerged.

This major research project did not have research funding simply because I chose to use the limited time to pursue actual research than to devote it to the speculative and often frustrating exercise of applying for a research grant. In any event, the research consumed so much of my interests that I was determined to pursue it to the end, even if I had to be jack-of-all-trades and be responsible for all aspects of the execution of the research and the production of the book. The success of such determination as seen in this final product is a testament to what can be achieved solely on the basis of my own effort. If there is a debt of gratitude that I have, it is to John Cantwell for two reasons: first, for showing me a possible theoretical framework with which I could explore and eventually found quite useful; and second, for agreeing so graciously to write the Foreword long before he ever saw the book in its final state. Beyond that, I have to thank some Divine Providence for keeping me safe and healthy to conduct this research and to see it through to its end, and to derive genuine pleasure in the final product. However, the greatest joys had been derived from the learning experience as a result of conducting the research.

The period of research behind this book also encompassed my journey into parenthood for the first time. Although it has not always been the easiest of tasks to fulfil my multiple roles as a mother and a jack-of-all-trades in the production of this book while also attending to a demanding teaching and administrative position at my current employment, I derived immense inspiration from my daughter who has grown up rapidly over the course of the research. While at the young and tender age of three years she may not have a clear idea of what her mother had pursued so relentlessly in 1999, she is fully aware that the book is dedicated entirely to her. The completion of this book at the dawn of the twenty-first century and the third millennium is symbolic of both the passage of time and a time well spent.

Paz Estrella Tolentino
November 1999

Note

1 The revised versions of both seminal papers that formed the basis of more major research for this book appear as working papers. These are Third World Multinationals: Emergence and Evolution, Birkbeck College, Department of Management and Business Studies, Working Paper 96/02, 1996; and Patterns of Growth of Multinational Enterprises: The Case of the Resource Scarce Large
Countries, Birkbeck College, Department of Management, Working Paper 97/01, 1997. ISSN 1461 4669.
Part I
Introduction
This book examines the emergence and evolution of multinational corporations (MNCs). In general, historical observations of the growth of MNCs suggest a developmental course in the pattern of outward foreign direct investment (FDI) from an initial emphasis on trading, resource-based or simple market-seeking investments where the competence of leading national firms is embedded in basic engineering skills, complementary organizational routines and structures. Over time, as industrial development of home countries proceed and as their firms gain maturity as MNCs, there is the gradual progression of their outward FDI towards more sophisticated forms of manufacturing and services activities that embody greater technological and organizational complexities. Indeed, the historical analysis of the developments in the sectoral pattern of outward FDI at the global level shows that the bulk of this investment was associated with primary commodity production before 1939, and only since the Second World War did outward FDI in manufacturing and services come into its own in a major way, bringing forth the growth in international technological competition in the industrialized countries and the global integration of FDI.

Such an evolution describes the growth of the mature MNCs of Europe and the United States over the last two centuries. The evolution of Japanese MNCs since the Second World War, on the other hand, has been compressed into a much shorter time span. Investments in resource-based activities and import substituting manufacturing in South East Asia led the way in the 1950s until the early 1970s, but since the late 1960s the interest of Japanese firms shifted to more sophisticated manufacturing production in Europe and the United States (Ozawa, 1991). Although MNCs from the Asian newly industrialized countries (NICs) are nowhere near as technologically advanced as the more established multinationals from Europe and the United States as well as the modern Japanese MNCs owing to the less advanced stage of the industrial development of their home countries, the lower forms of technological competence of their leading national firms and their lack of maturity as MNCs, the sectoral complexity and geographical scope of their international production activities are evolving much more rapidly than that of the more historical home countries of FDI. The main reason for this is the general trend towards the internationalization of business since the mid-1970s which has been common to firms of all countries. Domestic enterprises from the developing countries have, in general, embarked on international production and became MNCs at an earlier stage of their development than industrialized country firms (see Tolentino, 1993 for further support of this argument).
Despite the general trend towards the internationalization of business which has been common to the firms of all countries and the more rapid pace in the emergence of MNCs from the newer home countries and in the evolution of the pattern of their international production activities, there seem to be variations in the pattern of the early stages of outward FDI across different types of countries as well as their developmental paths over time that are determined by distinctive patterns of national economic development. Since each country or group of countries has a unique pattern of national economic development owing in part to different endowments of natural resources, different sizes of the domestic market and different types of development path pursued in achieving industrial development, the developmental course of international production in each country or group of countries is likely to be unique and differentiated. This is the central theme that permeates the analysis of the emergence and evolution of MNCs in this book, and the hypothesis that the research seeks to validate *vis-à-vis* the empirical evidence.

Since the conceptual framework relating outward FDI and patterns of national development belongs to the set of theories comprising the macroeconomic developmental approaches to international production, the theoretical foundations underpinning the analysis of the emergence and evolution of MNCs proceed from the various theoretical strands of this approach. The development of these various theoretical strands from their origins in the 1960s is therefore provided in the proceeding section of this chapter. The various theories developed have sought to relate the level, character and composition of inward and outward FDI of a country’s firms to the stage of the product life cycle (Vernon, 1966), the comparative advantage of countries (Kojima 1973, 1975, 1978, 1982), the national stage of development (Dunning, 1982, 1986a, 1986c) or the process of domestic industrial development. The latter has been useful in elaborating the concept of stages of development in international production of countries generally (Tolentino, 1993; Cantwell and Tolentino, 1990) as well as the developmental course of outward FDI of particular countries such as Japan (Ozawa, 1979a, 1979b, 1982) and the developing countries (Tolentino, 1993; Cantwell and Tolentino, 1990). By relating the emergence and evolution of international production to distinctive patterns of national economic development in different types of countries, the present research aims to refine the stages of development concept in international production, and therefore contribute to the advancement of more modern macroeconomic theories of international production.

**The macroeconomic development approaches to explaining international production**

The macroeconomic development theories of international production describe the dynamic and developmental process or the way in which stages of development or maturity of countries and firms affect their international production activities. The major theoretical strands comprising this framework are the product cycle model (PCM) Mark I advanced by Vernon (1966) to explain the patterns of American FDI in Europe in the 1960s, the integrated theory of trade and FDI of Kojima and Ozawa which explains the patterns of outward FDI of Japan, and the two more general concepts associated with the
investment-development cycle and path identified with Dunning, and the stages of
development in international production promoted by Tolentino (1993) and Cantwell and
Tolentino (1990).

The product cycle model

The earliest version of the PCM Mark I, advanced by Vernon (1966) was the first
theoretical strand to emerge among the modern macroeconomic theories of international
production. The model was developed owing to the limitations of the conventional
neoclassical Hecksher-Ohlin-Samuelson theory of international trade in explaining the
growth since the Second World War of trade and international production between the
United States and Europe with similar proportional factor endowments.

In developing the PCM Mark I, Vernon drew on the newer trade theories promoted by
and Posner emphasized the important role of technological factors in explaining
American trade patterns. In particular, Leontief alluded to the embodiment of higher
skills in American export products, while Johnson referred to the presence of a slower
rate of innovation in Europe compared to the United States in explaining the existence of
a persistent dollar shortage in Europe. The presence of a technological gap as an
important element in explaining trade patterns became more entrenched in the early
1960s with the pioneering work of Posner in developing a theory of trade based on
technology gaps, and in particular the different rates of innovation and learning among
different firms and countries. At the same time, Linder also proposed that similarity of
income levels, factor endowments and demand patterns were the important determinants
of the pattern of trade flows.

The fundamental principle behind the PCM Mark I is that the extent and form of
innovation and product development are determined by demand and relative factor prices
which exist in the market particular to the home country of the innovating firm. The
presence of a large market, for example, favours entrepreneurial opportunities in the
research and development, production and marketing of new products and processes.
Furthermore, the presence of high income levels in the United States in the 1950s and
1960s that engender new wants encourages the generation of ownership advantages of
American firms in the production of high-value consumer goods and industrial products.
The high unit labour costs in the United States relative to production also creates a
specific kind of entrepreneurial innovation, i.e. labour-saving innovation.

Drawing on the assumptions that products are capable of standardization at various
income levels and encounter foreseeable changes in production technology and marketing
methods, and that production processes proceed through phases over time and inevitably
achieve scale economies, the PCM Mark I delineates three principal stages in the life
cycle of a product. The first stage is that of the innovative new product, resulting from the
awareness of unique entrepreneurial opportunities and the identification of a novel
demand, or the adoption of new methods of production. The PCM further postulates that
American entrepreneurs are first aware of opportunities to fulfil new wants by new
products concomitant with high average income levels or high unit labour costs. This
stems from the model’s other assumption that the entrepreneurs’ consciousness of, and responsiveness to, entrepreneurial opportunities are a function of ease of communication with the market place which in turn is a function of geographical proximity. As a result, American entrepreneurs are expected to have a consistently higher rate of expenditure on product development than entrepreneurs from other countries, at least in product lines that fulfil high income wants and that substitute capital for labour.

The unstandardized nature of the new product, the high degree of product differentiation or the existence of monopoly in the early stages and the need for expeditious communication between producers, customers, suppliers and competitors underscore the importance of a location of production that favours external economies and the minimization of communication costs. Since the model assumed that these costs increase directly with geographical distance, a location of production which is close to the market is favoured in the first stage.

The second stage in the life cycle of a product is that of the maturing product, the result of a certain degree of standardization. The importance of flexibility—arising from the integration of research, production and marketing activities at the site of innovation in the first stage—decreases. Instead, the possibility of economies of scale through mass production increases with the specification of product and process technology. Thus, in contrast to the first stage where product specifications were fundamental, production costs now become far more important. Moreover, demand for the product increases correspondingly and becomes more price elastic with increasing buyer knowledge. In time, the demand for the product increases in other relatively advanced countries as Western Europe with similar demand patterns, especially since the product has a high income elasticity of demand and is labour saving. These foreign markets are first served through exports until the marginal production and transport costs of the goods exported from the home market are below the average cost of establishing a production facility in the export market, where factor costs, appropriate technology and scale economies are divergent from those in the home market.

Apart from cost considerations, any threat to the large-scale export business in manufactured products in the form of tariff protection imposed by export markets to promote growth or balance trade as well as the emergence of local competition within the export market becomes a powerful ‘galvanizing force’ propelling the initial import substituting international production of an established firm. The subsequent growth of production of rival firms may result in a threat manifested in the form of declining global share of the market with respect to the initial investor. Besides, the relocation of production abroad increases the possibility of exports to third country markets and even the home market should differences in factor costs surpass transport costs.

The third and final stage in the product life cycle is that of the standardized product. The nature of the product at this stage means that accessibility to market information is greater and competition is largely, if not solely, on the basis of price. The search for the lowest cost source of supply therefore becomes the priority of investor firms. At this stage, the ownership advantages of the firm are based mainly on marketing and distribution, unlike the earlier stages where ownership advantages were based on the abilities of the firm to engage in technological innovation.
A major feature of the PCM is its implicit reply to the Leontief paradox that American firms export more labour intensive goods instead of capital intensive goods with which the United States has a comparative advantage. The PCM describes the research intensive innovative stage of a product and the establishment of a pilot plant as particularly labour intensive because of the demand for research staff and marketing personnel. However, as the product reaches the standardized stage, scale economies become far more important. The mass production of the standardized product necessitates greater capital intensity compared to the greater labour intensity of the innovative stage.

In addition to the substitution of capital intensive means of production for labour intensive means of production in the standardized product stage, there is also a substitution or displacement of higher skilled labour by less skilled or unskilled labour. A cost determined equilibrium regulates the shift of these lower skilled and unskilled labour stages of production of standardized products to developing countries where labour costs are lowest and where incomes begin to ‘catch up’. A fourth stage in the product life cycle can therefore be envisaged in which there is a shift in the location of production to developing countries and specifically to the NICs. However, there is a major difference in the nature of American FDI in the developing countries at this stage and that of American FDI in developed countries at an earlier stage. International production by American MNCs in the developing countries is more likely to be of an export-oriented kind that is not driven by local market demand. By comparison, international production by American MNCs in Europe is more likely to be import substituting that is determined largely by demand factors in the host country.

The PCM is re-stated clearly in Hufbauer (1965, 1970), particularly its interrelationship with technological gap theories, while the further applications of the PCM in explaining American trade and international production patterns are found most notably in Knickerbocker (1973), Stobaugh (1968) and Wells (1972). Knickerbocker (1973), in particular, used the framework of the PCM to identify the capabilities of American manufacturing companies which enabled their expansion abroad as MNCs, and as a critical determinant of the industrial structure in the process of international expansion. The empirical support for the PCM has extended beyond the analysis of the patterns of American trade and international production. Graham (1975, 1978) and Franko (1976) have examined the significance of the PCM and other theories relevant to an understanding of the development of foreign manufacturing operations of American firms in Europe to the growth in the United States of some of the largest industrial firms based in the western part of Continental Europe. Graham (1978), Flowers (1976) and Hymer and Rowthorn (1970) have also extended the PCM to consider the concept of rivalry between firms from different countries.

**The theory of Japanese FDI: the contributions of Kojima and Ozawa**

Like the PCM, Kojima’s integrated theory of international trade and international production also analyses the interaction between ownership advantages and the changing location of production. However, Kojima’s theory differs in the theory of trade upon which it is based. The theory is based on the Hecksher-Ohlin principle of comparative
advantage (or costs) (Kojima, 1973, 1975, 1978, 1982, 1990). Kojima’s basic theorem is that FDI should originate from the comparatively disadvantaged (or marginal) industry of the home country which leads to lower cost and expanded volume of exports from the host country. This type of FDI is referred to as pro-trade, Japanese-type FDI. The non-equity forms of Japanese resource-based investment in resource-rich countries are regarded as trade-oriented investments because of the assurance of a supply quota or production sharing arrangements with indigenous enterprises in the host countries.

Such investments contrast with the wholly owned, vertically integrated resource-based production of firms from the United States and major European countries which originate from the comparatively advantaged industries of the home country and lead to misallocation of resources and a decreased volume of exports from the host country. This type of FDI is referred to as anti-trade, American-type FDI. The oligopolistic and technologically advanced American firms that engage in FDI are seen to be motivated by the defence of their oligopolistic positions, the exploitation of factor markets and the presence of tariff barriers in the developed countries.

An important criticism of Kojima’s theory is the way in which import substituting international production is regarded as anti-trade oriented. While import substituting international production may be considered anti-trade oriented at the microeconomic level, this may not necessarily be so at the macroeconomic level unless very restrictive assumptions are introduced in the model. The growth of outward FDI from the United States, Germany and Japan is often accompanied by an increasing level of exports. There is also evidence to suggest that owing to their potentially enclave nature export-oriented international production may play a less significant role in industrial adjustment or in increasing welfare of the host country (Dunning and Cantwell, 1990).

Kojima’s theory is essentially an industry-based theory as opposed to a country-based theory as he claims, in as much as Japanese and American MNCs were concentrated in different industries which helps to explain why their international production was aimed principally at serving either export or local markets. The extent to which the theory is country based derives essentially from the general way in which the stage of national development helps to explain the industrial structure of indigenous firms. Although further support for Kojima’s macroeconomic approach to international production was provided by Ozawa (1971, 1977, 1979a, 1979b, 1985), he acknowledges in his later work that the distinctive characteristics of Japanese FDI from 1950 to the early 1970s in resource-based and labour intensive or technologically standardized industries in developing countries belonged to the first two phases of Japanese MNC growth. Since the late 1960s, Japanese FDI has evolved to the third phase involving import substitution and the recycling of trade surplus resulting from the rapid process of industrial restructuring in Japan. Japanese FDI in this phase is focused on the mass production of assembly based consumer durables in high-income countries such as the United States and Europe, supported by a network of subcontractors. A fourth phase of Japanese FDI was discerned to pertain since the early 1980s. International production by Japanese firms in this phase has predominated in the flexible manufacturing of highly differentiated products, involving the application of computer-aided designing (CAD), computer-aided engineering (CAE) and computer-aided manufacturing (CAM) (Ozawa, 1991).
As with American MNCs, the growth of Japanese MNCs has therefore followed an evolutionary course from resource based and simple manufacturing towards more technologically sophisticated forms of international production. The essential difference between the evolution of American and Japanese MNCs lies in the swiftness with which Japanese MNCs have made the transition through the evolutionary path. Thus, although American and Japanese firms and industries are at a different stage of evolution, Japanese firms have demonstrated their ability to catch up rapidly, keep pace and, in some cases, even surpass technological advancements in the West.

In his more recent work, Kojima (1990) acknowledges that more recent American FDI in Japan is largely akin to a Japanese-type FDI as earlier described, while Japanese FDI in the United States has taken on the characteristics of American-type FDI. Such a rapid pace in the evolution of Japanese FDI may be attributed in part to the efforts of the Japanese government to change systematically the composition of the country’s comparative advantage, aided in part by licensed foreign technology (Ozawa, 1974). The view of pro-trade, Japanese FDI thus appears to be a reflection of the early stages of development of Japanese MNCs. The history of Japan’s trade development since the Second World War does not lend support to this form of application of the static theory of comparative advantage which prescribes that Japan’s trade patterns should conform to its comparative advantage then, i.e., the production and export of labor intensive goods and the import of capital and technology intensive goods. Instead, the increasing technological competitiveness and trade surplus of Japan in technologically intensive products provide support for the development of future-oriented technologies, so that the industries and sectors in which a country enjoys the greatest potential for innovation and in which investment may be most beneficial are not necessarily those in which it currently has a comparative advantage (Blumenthal and Teubal, 1975; Pasinetti, 1981). Major new investments by Japanese companies in the electronics components industry and the diversification into new product lines of those in the consumer electronics sector, for example, provides evidence of Japan’s continuing efforts to build an industrial structure based on industries and sectors in which the country has no current comparative advantage (Dunning, 1986b). As a necessary extension of the argument, Kojima and Ozawa (1985) argue that global welfare is increased where international production helps to restructure industries in line with dynamic comparative advantage.

Although most MNCs based in developing countries are unlikely to develop as rapidly as their Japanese counterparts who have drawn on frontier technologies, the trend is towards a persistent upgrading of activities for which these firms are responsible (Tolentino, 1993). The phases of development suggested by Ozawa for Japanese MNCs were thus rendered relevant to the study of MNCs based in developing countries. The first two phases of Japanese outward FDI from the 1950s to the early 1970s in resource-based and labor intensive international production in developing countries are pertinent to explaining the early stages of the growth of newer sources of outward FDI from the developing countries. In the early stages, as domestic industrial development proceeds with domestic firms in the developing countries upgrading their domestic production activities, comparatively disadvantaged (or marginal) industries are relocated abroad as locational advantages accrue in foreign countries at an earlier stage of development. In
later stages, more sophisticated manufacturing activities are transferred abroad, even to
the developed countries. The overseas activities of the NICs in the developed countries
since the 1970s, although based on a less research intensive form of technological
innovation than the Japanese MNCs, can nevertheless be described as being in the early
phases of the import substituting or surplus recycling stage of international production.

The underlying development process of international production that permeates the
Kojima—Ozawa theory echoes Vernon’s PCM and Dunning’s concept of an investment-
development path. Such similarity exists between Vernon’s PCM and Kojima’s
integrated theory of international trade and production despite the different theories of
trade upon which the two models are based (Mason, 1980). The comparative advantage
based model of Kojima and Ozawa presents a useful explanatory framework within
which to view the emergence and evolution of international production from countries
undergoing rapid growth such as Japan, Germany and the NICs in more recent years.
Both models explain the process of relocation of production of mature or technologically
standardized industries as locational advantages favour foreign countries at an earlier
stage of development. Such relocation of production is undertaken while the domestic
firms still have the technological and organizational advantages associated with lower
technology and more labour intensive production activities which can be exploited more
profitably in foreign countries with lower levels of technological capacities and
production costs. The common theme of a developmental process of international
production in the two models is obscured by the misleading theoretical framework
adopted by Kojima in his analysis.

The concept of an investment-development cycle and path advanced by Dunning
shows in more general terms the impact of the national stage of development on both the
level and character and composition of international production.

The concept of an investment-development cycle and path

The idea of an investment-development cycle has been advanced by Dunning (1981a,
1981b, 1982, 1986a, 1986c, 1988). The early versions of the concept proposed that the
level of inward and outward FDI of different countries, and the balance between the two,
is a function of their stage of development as measured by gross national product (GNP)
per capita. It was further suggested that the plotted data of the net outward investment
(NOI) and GNP of different countries, both variables normalized by the size of the
population, reveal the presence of a J-shaped investment-development curve with
countries classified as belonging into four main groups that correspond to four stages of
development. However, a fifth stage corresponding to the fifth stage of development was
later added (Dunning, 1988).

Countries at the lowest or first stage of development have little or no inward or
outward FDI, and consequently a level of net outward investment (NOI) that is close to
zero. Countries at somewhat higher levels of development attract significant amounts of
inward FDI, but as the outward FDI of their own firms is still limited, NOI is negative.
The argument then is that, past some threshold stage of development, outward FDI
increases for countries at yet higher level of development. The continued growth of their
outward FDI at a fourth stage results in a positive NOI, and the balance between inward and outward FDI in major industrialized countries consistent with the growth of cross-investments and intra-industry production results in the return of their NOI to zero at the fifth stage of development.

Although the concept of an investment-development cycle proposed a relationship between NOI and a country’s relative stage of development with a balanced investment position in the early and late stages of the cycle, the term ‘cycle’ seems inappropriate when referring to the presence of a J-shaped investment-development curve. The term ‘stages’ or ‘path’ seems more appropriate as countries at higher levels of development have not returned to the NOI position of countries at lower levels of development.

Empirical evidence provided in Tolentino (1993) for the period since the mid-1970s showed the existence of a structural change in the relationship between NOI and the country’s relative stage of development as result of the general rise in the internationalization of firms from countries at intermediate stages of development. The growth of newer MNCs from Japan, Germany and smaller developed countries, as well as some of the higher income developing countries, reflects their firms’ capacity to follow the earlier expansion of MNCs from the traditional home countries, the United States and the United Kingdom, at a much earlier stage of their national development. The increased significance of outward FDI from these newer home countries provides first-hand evidence of the general trend towards internationalization so that the national stage of development no longer becomes a good predictor of a country’s overall NOI.

More recent versions of the concept of an investment-development path have shown that apart from the level of NOI, the character and composition of outward FDI of a country’s firms varies with the national stage of development (Dunning, 1986a, 1986c). The early forms of foreign investment are frequently resource based or sometimes import substituting, and in each case a specific location is associated with a particular type of activity. However, as firms mature their outward FDI evolves from a single activity or product in a particular location, and adopt a more international perspective on the location of their different types of production activities. Cross-investments between countries become more common at this stage, and the visible hand of the direct organization of an international division of labour by firms replaces increasingly the invisible hand of coordination by international market transactions. The character of international production and the owner-ship advantages of firms become less determined by conditions peculiar to their home countries, but increasingly by firm-specific factors.

**The concept of stages of development in international production**

My earlier works have extended the perception of the later versions of the concept to the investment-development path by proposing that the outward FDI of countries themselves follows a developmental or evolutionary course over time (see Tolentino, 1993; Cantwell and Tolentino, 1990). Thus, outward FDI of countries has tended to predominate initially in trading, resource based or simple forms of manufacturing that embody limited technological and organizational requirements in the earlier stages of development. Factors specific to the home country such as the abundance or scarcity of natural
resources or the size of the domestic market have tended to engender particular ownership advantages of MNCs of different national origins. For example, the early forms of ownership advantages of American and British firms in wood processing and metal and coal processing respectively were acquired owing to the abundant availability of timber and coal in the United States and the United Kingdom (Rosenberg, 1976).

As home countries advance through progressively higher stages of industrial development and as their firms gain maturity as MNCs, the technological and organizational embodiment of their outward FDI activities becomes more significant and more complex. This is evident partly in the growth of their research intensive investments in centres of innovation in the developed countries through which firms gain access to more advanced but complementary forms of foreign technology which can be adapted and integrated within their indigenously created programme of technology generation. As a result, the developmental course of MNCs from the developing countries that are of more recent vintage has also been evolving rapidly, but has a distinctive technological tradition compared to the more mature MNCs from Europe, the United States and Japan owing in part to the earlier stage of their national development at which domestic firms in developing countries have acquired the capacity and the incentive to become MNCs.

The changing complexity of outward FDI as development proceeds is associated closely with a changing geographical scope. The simpler forms of investment in resource-based activity or simple manufacturing are frequently undertaken in host countries that are rich in natural resources or have an abundant supply of low-cost labour, or in countries with a close psychic distance, while more complex research intensive investments are undertaken in more industrialized countries. The sectoral and geographical development of international production of countries associated with the innovative capacities of domestic firms is therefore a gradual process over time, and one that is predictable to some extent.

The emergence and evolution of international production in relation to distinctive patterns of national development

More recent refinements of the concept of stages of development in international production are predicated on the premise that variations in the early stages of inward FDI across different types of countries and their developmental paths over time are determined by distinctive patterns of national development (see Cantwell, 1997). As mentioned, the developmental course of inward FDI in each country or group of countries is likely to be unique and differentiated since each country or group of countries has a unique pattern of national economic development owing in part to different endowments of natural resources, different sizes of the domestic market and different types of development path pursued in achieving industrial development. This idea was applied by Cantwell (1997) in the context of mapping the potential development paths of inward FDI in Africa.

The present research builds on this idea from the perspective of outward FDI. In particular, the research seeks to explore the possibility of the more general application of the proposition that patterns of national development (or industrial development) tend to
be associated with equivalent phases of MNC expansion from a broad range of countries. This dictum has antecedents in the eclectic paradigm of Dunning (1981a, 1988), and in the work of Swedenborg (1979), Clegg (1987), Wilkins (1988b), Porter (1990) and Lane (1998) among others. In the analysis of ownership-specific advantages in the eclectic paradigm of international production, Dunning distinguishes between those advantages that are determined by country-specific factors (i.e. those that accrue to all firms of one nationality over those of other nationalities), in addition to those that are determined by industry-specific factors (i.e. those that accrue to all firms within a given industry) and firm-specific factors (i.e. those that enable a firm to compete successfully with other firms within their own industry both in domestic and international markets). The country-specific factors may be generated by the size of a country’s market, level of income, resource endowments, educational system, government policy toward R&D, patent and trade mark legislation, etc. Swedenborg (1979) considered such home country characteristics as firm-specific knowledge, size of the home market, resource endowment, distance to major markets, etc. as relevant determinants of both the industrial and geographical distribution of outward FDI. Similarly, Clegg (1987) cited country-specific variations in licensing, exports and outward FDI which are explained by the indigenous environment and resource advantages of home countries and also its institutions, government policy and the maturity of firms in international economic involvement. Furthermore, Wilkins (1988b) argued that all companies with outward FDI have been shaped by economic and other conditions in their home country, and only subsequently by economic and other conditions in their host countries. Unique national characteristics in each home country have thus an impact on the nature and extent of the outward FDI of firms. This includes factor costs, level and pace of industrialization, areas of technological expertise, size and nature of the domestic market, relationships between banks and industries, national endowments of and requirements for natural resources, the availability of professional education, the country’s position as an exporter or importer of capital, government policies, geographical position, trade patterns, emigration, and culture and taste. Porter (1990) also developed the proposition that the national environment plays a central role in the competitive success of firms and industries. In that view, the home nation influences the ability of its firms to succeed in particular industries. This relates closely to the theory of Lane (1998) that the extent of embeddedness of MNCs to their home countries and in particular their degree of implantation into national economic and policy networks and national business systems influences their internationalization strategy—the degree of outward FDI undertaken, the kind of competitive advantages the MNCs possess and the kind of competitive advantages MNCs derive from FDI and the way in which nationally based and globally based activities are combined.

In the analysis of the relationship between national economic development and the development paths of outward FDI in this research, countries are classified into groups in the way that Cantwell (1997) had described when analysing developmental paths of inward FDI, the justification being that the sectoral or industrial patterns of outward FDI bear a close analogy to that of inward FDI in an earlier period. The analogy emerges partly from the role of inward FDI as a major modality of technology transfer to the host
country (Findlay, 1978; Lall, 1983a), as a result of which there is developmental upgrading of innovative domestic industries and the enhancement of indigenous technological competence of host country firms that are able to respond competitively to the presence of foreign based MNCs by undertaking outward FDI at a later stage (see Dunning and Cantwell, 1982 and Tolentino, 1993 for further elaboration and support of this argument).

The country groups vary according to the distinctive patterns of national economic development of home countries which take into account endowment of natural resources, the size of the domestic market and the type of development path pursued in achieving industrial development. Three country groups are described: resource-abundant countries, resource-scarce large countries (with resource-intensive production) and resource-scarce small countries (with non-resource-intensive production) (Table 1.1). The organization of countries in these groups facilitates the identification of the dominant form of earliest outward FDI, as well as the type of locally based firm that initiated outward FDI. This assumption is predicated on the premise that since patterns of national economic development are distinctive between country groups, the distribution of firm-specific knowledge across industries in different countries would also tend to differ—at least in the early stages. This means that there may be a peculiar home country-specific element to the analysis of outward FDI since ownership advantages—although these may

<table>
<thead>
<tr>
<th>Categorization of national development</th>
<th>Examples of dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
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</thead>
<tbody>
<tr>
<td>Resource-abundant countries</td>
<td>Brazil Resource oriented, and local market oriented in large countries</td>
<td>Resource-based firms</td>
</tr>
<tr>
<td></td>
<td>Bolivia (tin)</td>
<td></td>
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<tr>
<td></td>
<td>Chile (copper)</td>
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<td></td>
<td>Indonesia</td>
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<td></td>
<td>Malaysia</td>
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<td></td>
<td>Philippines</td>
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<td>Thailand</td>
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<td></td>
<td>Canada</td>
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<tr>
<td></td>
<td>Sweden</td>
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</tr>
<tr>
<td></td>
<td>Russia (oil)</td>
<td></td>
</tr>
<tr>
<td>Resource-scarce large countries</td>
<td>Argentina Local market oriented, trade related</td>
<td>Trading companies</td>
</tr>
<tr>
<td>(with resource intensive production)</td>
<td>South Korea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Taiwan</td>
<td></td>
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<tr>
<td></td>
<td>Germany</td>
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</tbody>
</table>
remain the property of firms—vary in a systematic manner between countries (Clegg, 1987) owing to differences in national economic structures, values, cultures, institutions and histories. The generation and maintenance of competitive advantages thus tends to be a localized process (Porter, 1990).

The evolution of outward FDI, i.e. its development path, is closely associated with domestic industrial development regardless of country groupings according to patterns of national development. However, the precise form of the relationship varies among country groups (Table 1.2). Thus, while locally based MNCs from resource-abundant countries can be expected to diversify from an initial concentration in resource extraction towards downstream processing of natural resources in resource-rich host countries, locally based MNCs from resource-scarce large countries are expected to upgrade their international production steadily from resource processing towards more capital and technology intensive industries. The rapid evolution of outward FDI is associated with industrial upgrading and the generation of strong production and export position in the home country. Finally, the evolution of outward FDI by

Table 1.2 Potential development paths for outward direct investment, and their association with local industrialization across different types of country

<table>
<thead>
<tr>
<th>Categorization of national development</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-abundant countries</td>
<td>Related diversification (for example from mining), downstream processing (for example, metal processing, wood products, petrochemicals, agribusiness), with some other upgrading of industry in large countries</td>
<td>Resource-based firms</td>
</tr>
<tr>
<td>Resource-scarce</td>
<td>Industrial upgrading and export</td>
<td>Manufacturing firms</td>
</tr>
</tbody>
</table>

Source: Author’s adaptation based on Cantwell (1997).
locally based MNCs from resource-scarce small countries are expected to be far more limited and although there may be some industrial upgrading, there is a marked tendency towards greater service orientation. Locally based MNCs from these resource-scarce smaller countries are thus expected to have significant FDI in the service industries owing to the development of their home countries as service economies.

Thus, the pattern of domestic industrial development influences greatly the emergence and evolution of outward FDI, and the main avenue through which this occurs is through the development of local technological competence of leading national firms. The emergence and evolution of local technological capacities are expected to vary according to patterns of national development and influence the type of outward FDI and its industrial course over time (Table 1.3).

**Structure of the book**

The conduct of the research on the emergence and evolution of MNCs on the basis of three main country groups that accord with distinctive patterns of national economic development dictated the structure of the book. Part II analyses the MNCs from the resource-abundant countries and, in particular, those based in the United States (Chapters 2 and 3), Sweden (Chapter 4) and Brazil (Chapter 5). Part III investigates the MNCs from the resource-scarce large countries and, in particular, those based in the United Kingdom

| Source: Author’s adaptation based on Cantwell (1997). |

<table>
<thead>
<tr>
<th>Stages of national development</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form of technological competence of leading firms</td>
<td>Basic engineering skills, complementary organizational practices</td>
<td>More sophisticated engineering, More science-based advanced engineering</td>
<td></td>
</tr>
<tr>
<td>Leading multinational corporations</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part IV examines MNCs from the resource-scarce small countries and, in particular, those based in Switzerland (Chapter 13), Hong Kong (Chapter 14) and Singapore (Chapter 15). These 11 home countries, comprising six developed countries and five developing countries, accounted collectively for two-thirds of the global stock of outward FDI in 1998. The six developed countries accounted for an equivalent share of the stock of outward FDI of the developed countries, while the five developing countries accounted for 69.5 per cent of the stock of outward FDI of the developing countries (based on data in UNCTAD, 1999). The selection of these 11 home countries of widely divergent national characteristics was necessary to demonstrate the relevance of the inter-relationships between the developmental process of outward FDI and distinctive patterns of national development and to advance the development of a comprehensive theory of the emergence and evolution of MNCs. Current theories in the macroeconomic development approach which are based on research of MNCs based in only one or two countries such as the United States (the PCM) and Japan (Kojima and Ozawa’s theory) can hardly form the basis of general principles.

Each country chapter analyses the developmental course of outward FDI of MNCs based in that country over time. It examines over time the fundamental determinants of outward FDI, its dominant industrial and geographical patterns, market orientation and the kind of locally based firms undertaking the outward FDI. The main conclusions drawn from the evolutionary analysis of MNCs from each of the country groups are presented in Chapters 6, 12 and 16. The research seeks to determine whether distinctive patterns in the emergence and evolution of MNCs indeed exist between MNCs in the group of resource-abundant countries, the group of resource-scarce large countries and the group of resource-scarce small countries owing to unique patterns of their national

<table>
<thead>
<tr>
<th>indigenous firms</th>
<th>routines and structures</th>
<th>scientific structures reflect knowledge, more needs of complex organizational methods</th>
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<tbody>
<tr>
<td>Type of outward direct investment</td>
<td>Early resource-seeking investment</td>
<td>More advanced resource-oriented investment and integration into international networks</td>
</tr>
<tr>
<td></td>
<td>or More advanced market-seeking investment</td>
<td>Research-related investment</td>
</tr>
<tr>
<td>Industrial course of outward direct investment</td>
<td>Resource-based or backward processing of (extractive MNCs or market-oriented vertical integration)</td>
<td>More forward processing of resources, wider local market-oriented and simple manufacturing</td>
</tr>
<tr>
<td></td>
<td>or backward processing of (extractive MNCs or market-oriented vertical integration)</td>
<td>Resources, wider local market-oriented and simple manufacturing</td>
</tr>
<tr>
<td></td>
<td>or forward processing of (extractive MNCs or market-oriented vertical integration)</td>
<td>More sophisticated manufacturing systems, international integration of investment</td>
</tr>
<tr>
<td></td>
<td>or forward processing of (extractive MNCs or market-oriented vertical integration)</td>
<td>More sophisticated manufacturing</td>
</tr>
</tbody>
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Source: Author’s adaptation based on Cantwell (1997).
economic development. Finally, the implications of the study of the history of MNCs for theory development are explored in Chapter 17 in Part V.

Notes

1 In fact, there is increasing evidence to suggest that a more appropriate unit of analysis is the sub-nation or regions and not the country. See, for example, the works of Cantwell and Iammarino (1998a, 1998b, 1999), Dunning (1998) and O’Farrell et al. (1996). This is because there are regional differences within countries in terms of technological innovation and in their ability to attract inward FDI and to generate outward FDI. For further discussion of the analysis of the location of innovative activities of MNCs in regions within Italy, the United Kingdom and Europe, see the various papers by Cantwell and Iammarino. Their papers suggest that investments in innovation at the national level are determined by those at the regional level. Since investments in innovation at the regional level are the ‘building blocks’ of innovation at the national level, then it follows that the regional scope of innovation is much more important than the national one. The effects of regional differences on the internationalization behaviour of local firms in the business services sector are discussed in O’Farrell et al. (1996).

While recognizing the importance of regional specificities in determining the emergence and evolution of MNCs based in a particular country, this has not been the main object of the research which focuses on country-specific patterns that differentiate MNCs based in different countries. In the pursuit of this research question, the country is, therefore, the appropriate unit of analysis.

2 Thus, countries rich in natural resources are included in the group of resource-abundant countries. Resource-scarce countries, on the contrary, are those that are less abundantly endowed with natural resources. In analysing the development path in inward FDI of the resource-scarce countries, it became apparent that there was the need to differentiate countries belonging to this group according to size (Cantwell, 1997). This is because resource-scarce countries with large domestic markets tended to pursue resource intensive domestic and international production, while resource-scarce countries with smaller domestic markets pursued non-resource intensive domestic and international production.
Part II
Multinational corporations from the resource-abundant countries
2
The emergence of multinational corporations from the United States
The period until 1914

Introduction

The United States accounted for no more than 18 per cent of the global stock of outward FDI in 1914—a share much lower than that of the largest home country, the United Kingdom, with more than 45 per cent (Dunning, 1983). Mexico, Cuba, Panama (and perhaps some other Central American countries) were probably the only host countries in the world where American foreign direct and portfolio investments in 1914 exceeded the British stake (Wilkins, 1970). Nevertheless, the share of the United States in the global stock of outward FDI grew rapidly to reach almost 28 per cent by 1938 and more than 47 per cent in 1960 (Dunning, 1983). Although the relative importance of the United States as a home country for FDI has declined to 24–25 per cent of the global stock since 1990 owing to the rise in the absolute importance of outward FDI from newer source countries such as Germany and Japan, the United States has, nevertheless, remained the single largest source country of outward FDI since the Second World War. Thus, no historical account of the emergence and evolution of international business would ever be complete without the analysis of the growth of American MNCs.

Given the long history of American MNCs and the presence of a rich and abundant historical literature on the subject, the analysis of their emergence and evolution is conducted in two chapters. This chapter covers the period of their emergence until 1914, while the following chapter covers the period of their evolution in the period since 1914. The account of the growth of American MNCs in these two chapters, although based mainly on the detailed and comprehensive data and information contained in Wilkins (1970) and Wilkins (1974), has aimed to distill the essence of the dynamic changes in the determinants and the sectoral and geographical patterns of American FDI abroad from its origins, with the help in some cases by references to other sources.

The emergence of American MNCs can be traced to the pioneering foreign investments of American merchants in the late seventeenth and especially the eighteenth century. By the late nineteenth century, railroads accounted for the largest share of American FDI at almost 23 per cent. These foreign investments in railroads paved the way for the emergence and growth of American FDI in mining which at that time accounted for the second largest share. The manufacturing sector was the third-largest recipient of American FDI in the late nineteenth century, followed by the petroleum and
agricultural industries. Although their relative importance has changed in the period leading to 1914, these remained the five most important industries of American FDI in 1914 (see Table 2.1).

The analysis of the emergence of American MNCs in this chapter begins with the foreign investments by American traders in the colonial times and the early years of American independence. The discussion then proceeds with the analysis of American participation in foreign railroads and other transportation. The general factors behind the emergence and growth of American FDI in mining, manufacturing, petroleum and agricultural industries between 1893 and 1914 is then considered, followed by a more detailed examination of American FDI in each of those major industries. Finally, some main conclusions are drawn about the changing industrial and geographical patterns of American FDI in the period until 1914.

**The evolution of the early American traders to American foreign direct investors**

The installation of American mercantile houses overseas as well as the foreign branches of American merchants, and the transformation of traders into investors in other foreign businesses constituted the initial phase in the history of American business abroad (Wilkins, 1970). The colonial merchants of the late seventeenth and especially of the eighteenth century pioneered in planting America’s first investment stakes in foreign lands.

*Table 2.1 Estimates of the stock of outward foreign direct investment of the United States, 1897, 1908 and 1944 (book value, US$ million)*

By the eighteenth century the typical colonial trader that engaged in foreign commerce used either independent agents abroad—generally British but on occasion transplanted Americans—or appointed a member of his own family as an overseas agent. American merchants would use British independent agents in foreign countries where the volume of
business was not large enough to warrant an outpost. 2 In other cases, transplanted Americans were used: these formed one aspect of American business abroad. These were individual Americans that migrated to Europe or to the West Indies and established foreign enterprises to handle the overseas trade of American merchants and firms. The enterprises established abroad had no parent company in the United States and were not, therefore, branches of American companies. Such transplanted Americans started the first American firms overseas in the 1730s and 1740s. 3

Some colonial merchants, preferring not to rely on independent agents abroad, sent members of their families to handle their overseas trade. This was the earliest evidence of the establishment of a foreign branch house, as in most cases the overseas representative was financed by an American enterprise. As with the independent agent, the overseas representative often acted for a number of American traders, not just his own family firm.

The choice of using independent agents or establishing their own trade representation abroad or ‘markets and hierarchies’ (Williamson, 1975, 1986) as alternative modes for conducting overseas trade transactions was based on the adequacy of existing independent agents, their potential to exhibit opportunistic behaviour, the frequency and volume of trade and the profit opportunities in a particular foreign market. If there were an adequate number of independent agents present in a foreign country that were trustworthy and if the trade volume and profit opportunities were small, colonial merchants preferred generally to use existing independent agents (either European or transplanted American) who would buy and sell on order or consignment. In such circumstances no investment was made by the American enterprise, apart from the goods involved in each trading transaction. The market transaction between colonial merchants and independent agents took the form of ‘relational contracting’ (Williamson, 1986) and informal enforcement, where long-term relationships between the colonial merchants and independent agents substituted for common ownership.

On the other hand, should the volume of business in a foreign country be large and the profit opportunities tempting, there were increased risks of market failure or high transaction costs associated with information impactedness and bounded rationality (i.e. the unavailability of perfect and full information at zero costs leading to limited rationality of individuals and the high costs of negotiating and concluding complete contracts) and the greater tendency for opportunistic behaviour on the part of independent agents (Coase, 1937). This was particularly the case in the profitable trade with England and the West Indies. In these important export markets, the seller often felt that uncertainty could be overcome and greater control over foreign business could be had if the transaction was brought under ‘unified governance’ (Williamson, 1986) through the establishment of the firm’s own overseas representative. 4 This is an historical application of the modern theory of ‘internalization’ of markets as applied in the case of international production by Buckley and Casson (1976). The close supervision afforded by the overseas representative would enable the foreign business to expand more rapidly inter alia because trading risks were minimized. The American merchant or trading firm could expect more personal attention to its goods, more satisfactory storage facilities, more information on markets, more beneficial credit arrangements and, more importantly, an
opportunity to retain profits within the firm. However, there were costs involved with the establishment of an overseas representative: the salary of the representative abroad and the expenses of an office and warehouse, the costs of acquiring knowledge (at least initially) of a particular market and the loss of trade financing if the American merchant obtained this from an independent foreign agent (Wilkins, 1970).

With the withdrawal of preferential trade treatment by the British empire after American Independence, new products for export as well as new and more distant markets were sought by American merchants. Cotton surpassed tobacco in importance and became the largest export of the United States by 1803. Closely associated with the diversification of American exports destined to wider markets was the establishment of more transplant American trade agents overseas. At the end of the 1830s or earlier, transplant Americans who acted for American traders were resident in Madagascar, Zanzibar, Smyrna and Bombay. There was also a collection of independent American trading agencies and branches of American commercial concerns in Cuba, the West Indies, Canada and Newfoundland in the 1820s and 1830s and in many Pacific islands and Canton in the late eighteenth century. Meanwhile, new trading commitments were made in the United Kingdom. In Liverpool, there were both merchants collecting goods for sale and some representatives of American mercantile houses handling cotton. By the 1830s, a large number of American merchants resided in England. Nonetheless, in spite of the increase in American trading outposts in foreign countries, American merchants continued to use independent European—mainly British—houses as their foreign agents in certain foreign ports (Wilkins, 1970).

Although outward FDI by individual traders and trading firms did not account for the bulk of capital outflows of the United States in the colonial period and in the early years of the republic, Wilkins (1970) argues that American mercantile activity affected the later growth of American international business in a number of significant ways.

First, the accumulated surplus capital from the trading ventures was directed in a large part towards American domestic enterprises in real estate, transportation, industry and mining. The development of an American national market, made possible by the establishment of railroads that linked different parts of the United States, led to the emergence of national firms that later evolved to become international firms. Foreign ventures by American firms in railroads, mining, manufacturing and natural resource extraction later started their own wave of American FDI which became the most important sectors of American FDI by the late nineteenth century.

Second, while none of the American FDI made either by independent agents or by members of a trader’s family in England and islands in the West Indies during the colonial period lasted, a small number of the pioneering American businesses abroad in the post-colonial era continued for years as permanent trading posts (Wilkins, 1970). By the mid-nineteenth century, the continuity of such trading companies became more common. These American trading firms became agents of large American industrial companies in their early forays in foreign sales. It was only when foreign business in American manufactured products expanded in a major way that American industrial firms begin to handle their overseas marketing themselves.

Third, there was the metamorphosis or merger of particular mercantile businesses into
more diversified and sometimes entirely different enterprises engaged in lines of
businesses besides commerce. Some broadened their functions by integrating into
mining, agriculture, industry, transportation and banking. Sometimes this transformation
took place abroad and sometimes in the United States. Of most interest was the change
that occurred overseas. The first case of an an American trader turned foreign direct
investor was David Beekman, the son of the New York merchant Gerardus Beekman,
who went to St Croix to represent his family’s sugar trading firm in the 1750s. Profits
earned from sugar trading provided the capital for the purchase of sugar estates on the
island. Similarly, the Boston Fruit Company—the predecessor of United Fruit
Company—invested its earnings from trading and shipping concerns in the Caribbean in
banana plantations in the region. This pattern of American traders becoming foreign
investors through vertical integration in agriculture, mining, and to some extent in
railroads and industry became typical in years following. The evolution of the nineteenth
century trader into an investor was a result of either accident (i.e. through extending
credit and acquiring property as a result of the debtor’s default on debt) or made on
purpose through the intentional integration of the business. In neither case was much, if
any, capital exported from the United States. Foreign capital investment was made either
through the credit line or the reinvestment of profits accrued abroad (Wilkins, 1970).

The earliest American private banks to venture overseas also had their genesis in
trading companies. The House of Morgan, with its London connection, evolved in 1837
from the mercantile business of George Peabody. Samuel B. Hale’s Argentine trading
firm also moved into banking whose main business was the flotation of loans for the
Argentine national government and several provincial governments. From the late 1840s
onwards, the financial dealings of the American firms Lazard Frères, Seligman, and
Morton, Bliss & Co. that set up branch banks in Europe also emerged out of mercantile
endeavours. These firms found trading in money to be more lucrative than trading in

By number of ventures, the foreign trader turned foreign investor was the most
significant form of American FDI during the colonial times and in the first 75 years of the
Republic (Wilkins, 1970).

**American participation in foreign railroads**

By size of investment, railroads accounted for the largest share ($144 million or 23 per
cent) of American FDI in 1897. Although the level of American FDI in railroads grew
steadily, reaching some $161 million in 1908 and $255 million in 1914, its share in total
American FDI declined to less than 10 per cent in those years (see Table 2.1).

American capital investment in transportation was most significant in Panama and
Nicaragua in the period before the American Civil War (1861–65) and in Mexico,
Canada and the Caribbean in the period between 1880 and 1914. Mexico, Canada and the
Caribbean together accounted for 99 per cent of all American FDI in railroads in 1897
and 1908 and even by 1914 these neighbouring areas continued to account for more than
94 per cent of American FDI in railroads. American participation in foreign railroads
came in the form of horizontal integration in the western hemisphere by American railroad companies or by the forward vertical integration of agricultural and mineral companies in the ownership of railroads to facilitate the transport of agricultural produce, mineral ores or mineral products. The United Fruit Company, the Cerro de Pasco Mining Company and the mineral investments of the Guggenheims were some of the excellent cases in point. In some cases and, perhaps more significant in number, was the American participation in railroads in the Caribbean, Canada and South America where their main contribution came not from the provision of American capital but in the ingenuity, talent and expertise provided by American entrepreneurs, syndicates and small companies in the construction of railroads.

The railroads investments in the western hemisphere were considered the international extension of the domestic business plans of American railroad companies (Wilkins, 1970). Such was the case with the construction of the Panama railroad and the Nicaraguan carriage-steamboat line by the Panama Railroad Company and the Accessory Transit Company, respectively. The stake in the Panama railroad by the Panama Railroad Company (chartered in the New York legislature on 7 April 1849) with authorized capital of $1.5 million (later increased to $5 million) was considered an exceptional and the first truly large American capital investment in a foreign land. The enterprise had the unique feature of combining the export of American skills, techniques and capital on what was for the time a mammoth scale (Wilkins, 1970). After 1856, with no other route across the Central American isthmus, and until the completion of a United States transcontinental railroad in 1869, the Panama railroad provided the undisputed best means of transport from the American East to the American West. Similarly, the carriage-steamboat Nicaraguan route established for $2 million was the best approach to the American West in the period from 1851 to 1855, carrying some 20,000 people annually across the isthmus.

The establishment of foreign railroad networks in Mexico, Canada and the Caribbean by American firms and individuals enabled the further expansion of American business overseas. The Panama railroad stimulated significant business opportunities as well as trade between the American East and the American West, to China, Australia, Europe and the East Indies. Similarly, the railroads constructed by American capital in Mexico supported the emergence and development in that country of business opportunities for American companies in mining and agriculture. A similar stimulus to business and trade opportunities brought about by the railroads was evident in South America and the Caribbean where, despite the lower level of American capital investment in railroads, the development of railroads in those regions paved the way for the growth of further American investments in mining and agriculture, respectively. At $221 million, the level of American capital investment in mining accounted for more than two-thirds of American capital investment in South America in 1914. On the other hand, American capital investment in agriculture, amounting to some $181 million, accounted for almost half of American capital investment in the Caribbean in 1914.
American FDI in mining, manufacturing, petroleum and agriculture in the post-Civil War period until 1914

The period since the American Civil War and in particular from 1893 to 1914 described the large-scale expansion of American FDI. The phenomenal growth of American MNC activity abroad made the United States a net exporter of capital from 1898 to 1905 (Wilkins, 1970). Factors relating to the home country, host countries and the firm had a pronounced influence on the growth of American MNCs during this time. The push factors associated with the growth of the firm and of conditions in the home country (i.e. the economic environment of the United States, including actions by the United States government) combined with the pull of profitable business prospects abroad (the growth of foreign markets, the availability of foreign sources of supplies and actions by host country governments) contributed to the rising levels of American FDI in the decades before 1914. The following sections analyse these factors more closely.

Home country-specific factors and firm-specific factors

There were several home country-specific factors as well as firm-specific factors that were fundamental to the expansion of American FDI in the period before 1914.

First, the emergence and expansion of American FDI in mining, petroleum and agriculture can be linked to the presence of rich and abundant natural resources in the United States. The United States was the world’s largest producer of copper, lead and petroleum in 1900, and was the second largest producer of bauxite, gold and zinc (Jones, 1996). Combined with a high agricultural productivity, this enabled the United States to shape its economic destiny on the basis of natural resources. American firms thus developed management and organizational skills and technologies in natural resource extraction and processing which were exploited profitably abroad. The accumulated skills and technology of American firms in natural resource extraction and processing were particularly important when the United States demanded increasing amounts of minerals, petroleum and foodstuffs which could not be met fully by domestic sources of supply.

Similarly, the emergence and expansion of American FDI in manufacturing can be linked to the rapid development in the 1850s of American technologies in certain metallurgical industries (i.e. machine tools, guns, reapers, and sewing machines) linked with mass production in which the United States had already acquired world leadership (Wilkins, 1970). The American companies with novel products and whose entrepreneurs exhibited farsighted leadership grew rapidly and made the most far-ranging investments in foreign countries. These features describe consistently the growth of American MNCs over time, particularly in the manufacturing sector.

The development of American skills and American technology were key to the growth of their FDI—whether in search of supplies or in search of markets.

Second, the slow growth of domestic demand brought about by the depression in the
United States between 1893 and 1897 led American companies with surplus production to turn to foreign markets as an outlet for goods that could not be sold at home. As their exports to foreign markets started to rise, companies established sales branches abroad initially and then factories at a later stage to maintain and increase their foreign sales.

Third, there was the development of large enterprises resulting from the trend towards domestic mergers at the end of the nineteenth century. The trend was facilitated by the development of the American capital market and encouraged by the Sherman Antitrust Act of 1890 that forbade agreements among independent companies to restrain trade. Indeed, the domestic firms that survived the depression were the very large enterprises that resulted from the merger movement during this period. The modern industrial enterprise became large not merely by expanding its size—which the trend towards domestic mergers at the end of the nineteenth century facilitated—but also by broadening its scope through horizontal and vertical integration (Chandler, 1980). The consequence was that not only did productive assets in many industries become concentrated in a few large business firms, those few large business firms that inherited the foreign businesses of their predecessor companies became international companies from their existence. Many of these were resource-based companies. Thus, the same entrepreneurs involved in the creation of large domestic businesses led the expansion of American businesses abroad, seeking markets and raw materials in foreign lands. Outward FDI in turn afforded another route by which these large American companies further increased their size and scope.

Fourth, actions by the United States government also favoured the growth of international production by American firms, particularly in resource-based industries. For example, the duty free status accorded to Canadian newsprint in 1911 as a result of strong pressures from American newspaper publishers, combined with the industrialization policy of Canada which encouraged local processing of Canadian natural resources made lumber and paper and pulp mills account for at least one-third of American FDI in manufacturing in Canada in the period between 1897 and 1914. Similarly, the establishment of smelters across the Rio Grande was a profitable venture for many American investors as a result of the passage in the United States of the McKinley tariff in 1890 which imposed new duties on the exports of lead ores to the United States. The duty free status accorded to Cuban sugar under the McKinley tariff and other actions by both the Cuban and American governments also led to the growth of American FDI in the Cuban sugar industry—the most important industry for American FDI in that country. In addition, the worldwide surge in demand for rubber from the early 1900s led President William McKinley to encourage American firms to cultivate rubber overseas to meet the domestic requirements of the United States. This stimulated the growth of American investments in Mexican rubber and by 1912 Americans controlled 68 per cent of Mexico’s rubber business (Schell, 1990; Wilkins, 1970).

*Host country-specific factors*

Locational advantages of host countries favoured the international expansion of American firms in the mining, manufacturing, petroleum and agricultural industries in the
post-Civil War period until 1914. In the case of those firms in the resource-based industries, the presence in foreign lands, particularly in neighbouring countries, of rich and abundant natural resources, including those that were not available in the United States or were available at lower costs, low labour costs and the provision of favourable incentives by host country governments to foreign investment, posed profitable FDI opportunities for the largest American mining, agricultural and petroleum companies. The lower costs of minerals prospecting and development in Mexico, for example, was associated with lower capital investments by American companies when compared to the size of their capital investments for similar activities in the United States. In these industries, American companies dominated domestic production in their host countries and, in some cases, became the world’s largest producers. For example, large copper companies based in the United States—the world’s leading producer and consumer of copper—secured world leadership in that industry in part by their control of rich foreign ore deposits in Mexico, Canada and South America. In 1911, the three largest American copper groups combined controlled 48 per cent of world copper refining output (Schmitz, 1986). In a similar fashion, the Canadian Copper Company established by the American entrepreneur Samuel J. Ritchie eventually became the world’s largest nickel producer (Wilkins, 1970). In other cases, the dominant participation of American companies enabled the host countries to become the world’s largest producers. For example, American investments enabled Mexico to surpass the United States as the world’s largest silver producer in 1902 and the second-largest copper producer after the United States in 1904 (Jones, 1996). American investments also enabled Mexico to become the world’s third-largest oil producing country in 1911, following the United States and Russia (Wilkins, 1970).

In the case of market-oriented American FDI particularly significant in Canada, Europe and, at a later period, Japan, the high incomes of those countries, their growing demand for American products and the emergence of a competitive fringe of local firms producing similar products which posed a threat to the continued growth of the American firm through exports were the fundamental locational determinants favouring international production. The product cycle model considered these factors to be important in explaining the growth of international production of American manufacturing firms in Europe in the immediate period after the Second World War (Vernon, 1966), but evidence presented in this chapter and the next trace the relevance of the same set of factors further back to the emergence of American manufacturing MNCs prior to 1914.

Apart from the traditional location-specific variables related to the presence of abundant natural resources, low labour costs and large and rapidly growing foreign markets, actions by foreign governments in important export markets in the form of incentives to FDI or obstacles to exports or particular value-added activities by MNCs favoured the decision to either switch from exports to international production or to engage in higher value added activities in their foreign operations. These were of different kinds.

First, there were nationalistic policies of foreign governments involving the imposition of tariffs, the demand for local production of imports, or local processing of extracted raw
materials that provoked American businesses to engage in international production in Canada, Europe and Japan. Foreign customs duties which made imports uncompetitive with locally produced goods prompted international production behind tariff walls. American manufacturers of sewing machines, cars, car accessories, rubber goods, harvesters, radiators and enamelware established factories to sell within the Dominion in order to avoid full customs duties. Similarly, differential customs duties encouraged foreign petroleum refining by American firms. Through international production, such companies were able not only to overcome tariff barriers but also to meet existing or, more often, preclude potential competition.

Furthermore, insistence by foreign governments in Europe for local purchases of equipment stimulated American firms in the electrical industry to produce in Europe, for example. The industrialization policy of Canada which encouraged local processing of Canadian natural resources favouring the expansion of American FDI in the Canadian paper and pulp industry was already mentioned. Similarly, nationalist sentiments and special product needs abroad prompted American firms to manufacture in a foreign country.

Indeed, the international production of American companies in the oil, tobacco, electrical equipment, car, and fertilizer industries was influenced by host government tariffs, preferences for national businesses, support of local cartels, etc. In these industries American firms were affected profoundly both by Canadian and European business and political conditions. The sensitivity of some American businesses abroad to local traditions and their respect for local jurisdictions and policies was manifested in part in the hiring of local personnel, the purchase of local supplies and the adoption of ‘national’ titles. This was true of many American manufacturing firms that invested in Canada (Wilkins, 1970).

Second, foreign government action in the form of rigid patent requirements particularly in Canada and Germany forced compliance by American firms in order to maintain their businesses. Patent laws require that local manufacture be initiated and rendered adequate to meet the demands of the local market within a set period of time (three years in Germany and two years in Canada) from the date of the patent grant. This prompted the American controlled Bell Telephone Company of Canada, for example, to begin to manufacture telephone equipment in Montreal in 1882.

Third, the introduction of unilateral concessions to goods made in the British empire affected the growth of American FDI in Canada. The Canadian expansion of the Ford Motor Company was planned on the basis of preferential trading arrangements within the empire.

Fourth, host governments in Mexico, Canada and the Caribbean offered incentives in the hope that their economies would benefit from the influx of American capital. To encourage economic growth, Mexico not only extended subsidies to American railroad companies, but also implemented favourable mining laws, offered tax incentives to new foreign enterprises, and cancelled import duties on materials for mills and smelters and provided police protection to mining projects and plantations. In addition, many of the export levies on silver and gold, imposts on certain business transactions, and property taxes could be reduced or waived through negotiated concessions. The Canadian
government likewise extended subsidies, loans and bounties to American investors. The Chilean government also encouraged American capital and expertise in line with the country’s objective to regain its position as the world’s largest copper producer. Indeed, with the large American capital stakes eventually invested in Chilean copper, that country obtained more American capital than any other South American country before the First World War. The favourable tax incentives provided in the Peruvian Mining Law of 8 November 1890 also led to the influx of large American capital to exploit and develop Peruvian mines, particularly copper, vanadium and gold. Many Caribbean governments also gave concessions to new American businesses, including low taxes, land, and freedom of workers from conscription (Wilkins, 1970).

The subsequent sections examine more closely the emergence of American MNC activity in each of the mining, manufacturing, petroleum and agriculture industries in the period until 1914.

**American participation in foreign mining**

As mentioned, the development of foreign railroads paved the way for the growth and development of new business ventures including mining, particularly in Mexico and South America. The railroad enabled travel to remote mining districts, lowered freight charges on the transport of ores from the mines, and made feasible the introduction to the mining regions of bulky and heavy modern machinery (Wilkins, 1970).

In the period before the end of the nineteenth century, mining and smelting was the second largest sector of American FDI after railroads accounting for some 21 per cent or $134 million of American FDI in 1897. Since that time and until 1914, the large capital requirements of mining prospecting and development made the mining and smelting sector surpass railroads and become the most important sector of American FDI, with a share of some 27 per cent of American FDI in 1908 and 1914. By 1914, American FDI in mining and smelting reached $720 million.17

As with American investments in foreign railroads, American businesses that ventured abroad in mining and smelting tended to concentrate in the neighbouring areas, particularly Mexico, Canada and South America. These areas accounted for some 95 per cent of all American FDI in this sector between 1897 and 1914. Mexico received the dominant share of American FDI in the mining and smelting sector in the period until 1914. The establishment of the Mexican railways system combined with the attractive business opportunities posed by the rich and undeveloped Mexican mineral resources particularly of silver, gold, lead, zinc and copper as well as coal led to the influx of hundreds of American mining companies in Mexico. These location advantages combined with the lower costs of minerals prospecting and development and various forms of host government incentives and the nationalization of the key railroad lines between 1903 and 1909 made the mining and smelting sector surpass the previously dominant share of railroads and become the most important sector of American FDI in Mexico by 1908. Thus, although in 1897 railroads accounted for the largest share (56 per cent) of American FDI in that country, by 1908 mining and smelting accounted for that share. The early American mining ventures in Mexico often took the form of acquisition
of old abandoned mines from Mexican owners.

Canada was the second largest recipient of American FDI in mining and smelting in the period before 1914, at least until the South American mines were discovered. The richness of Canada’s mineral resources encouraged many American entrepreneurs to acquire interests in mining copper, nickel, iron ore, asbestos, lead, zinc, coal, gypsum, manganese, antimony and phosphate and precious metals such as gold and silver. In a majority of cases the mining investments made by American entrepreneurs took the form of the establishment or acquisition of small companies, some of which were incorporated in the United States and some in Canada.18

The development of South American mines by American firms made that region an important recipient of American mining FDI by 1914, with a share of more than 30 per cent. American interests in South American mining and smelting before the end of the nineteenth century were small and many were short-lived.19 Indeed, the region accounted for less than 5 per cent of American FDI in mining and smelting worldwide in 1897. Some of the mining stakes evolved from the activities of traders. The presence of rich mineral resources in the region combined with the development of the American capital market by the early 1900s made the mining and processing of various ores account for the largest share of American capital in South America in the period from the early 1900s to 1914. The vast copper resources of Chile and Peru made these countries the most important recipients of American FDI in mining and smelting in the region at the turn of the century. In these two countries American companies developed the richest copper properties and American capital came to dominate the copper mining industry.20 It also enabled South America to become the second largest recipient of American FDI in mining and smelting by 1914, after Mexico. Indeed, the region became associated with mining for American firms. As mentioned, this sector accounted for $221 million or 68 per cent of American FDI in that region in 1914—a considerable increase from the $6 million invested in the industry in 1897 (Table 2.1).

For the most part, the output of foreign mines served to supplement the domestic mineral resources of the United States. Thus, the activities of American mining MNCs involved primarily the extraction of mineral ores to be exported in an unprocessed state to the United States for smelting and refining.21 The smelting of mining ores alongside the extraction of minerals occurred only in a major way in Mexico and Chile. The smelting operations in Mexico were a response to the passage in the United States of the McKinley tariff in 1890 which imposed new duties on the exports of lead ores into the United States as mentioned, while that in Chile was encouraged by the introduction of the flotation process in 1912 as a new technique for concentrating copper ores which facilitated mechanization and the simplification of tasks that could be matched with semi-skilled, low-cost labour (O’Brien, 1989).22 The processing of Mexican and Chilean ores usually went only so far as smelting, then the product would be exported.23 With the ascendance of mining and smelting as the most important American FDI in Mexico in the early 1900s, the United States increasingly looked at this country as the most important and convenient ‘across-the-border’ source of supply for minerals.
The manufacturing sector accounted for between 15 and 18 per cent of the stock of American FDI worldwide between 1897 and 1914 (Table 2.1). It was the third-largest sector after railroads and mining in 1897, but since the early 1900s it became the second-largest sector after mining by size of investment. However, the largest number of foreign stakes of American-controlled international corporations in the period prior to 1914 was in the direction of sales and manufacturing. Indeed, the much larger capital investments required in multinational extractive and agricultural holdings meant that there were far fewer American-controlled international corporations in these activities compared with those that had sales or manufacturing stakes (Wilkins, 1970).

At the turn of the century, the new wave of American corporations that engaged in foreign expansion through export marketing and international production invested mainly in their most important foreign markets—Canada, Europe and, after 1899, Japan where per capita income was high and the ability to consume was great. Some three-fifths of American FDI in sales worldwide and 96 per cent of American FDI in manufacturing worldwide in industries other than petroleum were directed to Canada and Europe in 1897. Largely owing to the consideration of the Canadian market as an extension of the American market, Canada was the single most important host country for international production by American firms—accounting for between 46 and 59 per cent of American FDI in the manufacturing sector worldwide between 1897 and 1914. Europe, however, was a far more significant host country than Canada for American FDI in sales. The influx of American manufactured goods in Europe between 1897 and 1902 raised concerns about an American invasion of Europe of which the works of McKenzie (1901), Stead (1902) and Thwaite (1902) provide an indication. The geographical concentration of foreign sales and foreign manufacturing activities by American firms in the market-rich economies of Europe, Canada and Japan was different from that of American businesses that ventured abroad to build railroads or search for natural resources. As seen in the previous sections, the latter investments generally gravitated towards the resource-rich neighbouring countries of Mexico, Canada, South America and the Caribbean.

The analysis of American FDI in manufacturing which follows begins with the earliest investments in the pre-Civil War period, followed by those in the period since 1865 with the emergence of sustained American FDI in foreign branch factories.

**Investments in overseas manufacturing in the pre-Civil War period**

In the period between 1800 and 1860, there were investments by American manufacturing firms or their stockholders in overseas branch factories to supply a foreign market. As mentioned, the rapid development of American technology in certain metallurgical industries (machine tools, guns, reapers, and sewing machines) in the 1850s, linked with mass production in which the United States had already acquired world leadership, explain the pioneering role of American metallurgical firms in
international production. The emergence of ‘classic’ or modern American MNCs—firms which had grown in the domestic market owing to their managerial and technological competences prior to embarking on international expansion—can be traced to the pre-Civil War period. The first foreign manufactory of an American company was that of Samuel Colt in London, England in 1852. This foreign manufactory of firearms is regarded to have been the first foreign branch plant of any American company (Wilkins, 1970). The motive behind its establishment was to protect the firm from unfair competition as a result of the introduction of counterfeit firearms in England where the firm had no patent. The second foreign manufactory of an American company was that of J.Ford and Company that built a factory for vulcanized rubber in Edinburgh, Scotland in 1856. The motive behind its establishment was the opportunity to earn higher profits from foreign expansion and to prevent the exploitation of a patent in Scotland where English patents were not protected.

In the product cycle model, the emergence of a competitive fringe of local firms in relatively advanced follower countries that are able to catch up through the imitation of innovation of the technologically leading American firms is one of the factors associated with the growth in demand for a ‘maturing’ product in these countries. The threat to the large-scale export business in the form of local competition becomes a powerful ‘galvanizing force’ for the initiation of import substituting international production by American firms (Vernon, 1966).

The establishment of these two foreign manufactories—although unprofitable and eventually sold to British interests—were exceptional American FDI in foreign branch factories before the Civil War. There appear to have been no others (Wilkins, 1970).

The period since 1865

The level of American FDI before the Civil War was generally low because rapid means of transportation and communication both within the United States as well as between the United States and foreign countries had not been developed fully to enable domestic firms to explore new and wider markets. The period since the American Civil War brought sweeping changes in the development of domestic and foreign transportation and communication facilities. As mentioned, the development of railroads in the United States enabled domestic companies to become national firms as distinct from local, state or regional firms. It was American companies with national sales plans and unique products that discovered the attractions of business abroad and were the first to be successful in undertaking such activities (Wilkins, 1970). This was associated closely with the beginning of the era of Pax Americana with the pioneering role of American firms in the second generation of industrial discoveries around the 1870s which encouraged the development of fabricating industries such as motor vehicles, office machinery, electrical goods, synthetic chemicals and others. This was unlike the technical and organizational advances of the First Industrial Revolution which led to the development of processing industries in which the United Kingdom had the technological hegemony (see Chapter 7). The Second Industrial Revolution exerted major repercussions on the organization of production as the development of fabricating
industries required more hierarchical organizations to operate successfully and the modern industrial company grew both by horizontal and vertical integration (Chandler, 1980). As the process of firm growth encompassed integration across national boundaries, the implications of the later technical and organizational advances became truly transcontinental.

Plans for the further growth of the American industrial firm through international expansion sometimes coincided with, initiated shortly after, or long delayed after national plans. Inventors (such as Thomas Edison and Alexander Graham Bell) and manufacturing companies sought not only to cater to but also create foreign demand on the basis of their strengths in making new and innovative products, manufacturing methods, sales and advertising techniques. Unlike foreign investments to obtain sources of supply or raw materials, foreign marketing investments involved typically only small amounts of capital investment, if any; and could be initiated and maintained with virtually no outflow of capital from the United States. In fact, should additional capital to support export growth be required, as in the case of some American firms in the electrical equipment and film industries, such funds were raised typically abroad.

Generally, the foreign activity of American manufacturing firms in Europe or Canada tended to be either forward integration into sales or horizontal integration in manufacturing, but over time the former kind often led to the latter kind. The initial foreign investments established by American manufacturing (and also petroleum) companies in the period after the American Civil War were mainly marketing or sales oriented—made primarily to broaden markets, obtain better control over distribution, meet competition as well as to avoid national business cycles (Wilkins, 1970). This conforms with the product cycle model that suggests that the growing demand in other relatively advanced countries for American products are first served typically through exports on account of the lower costs of domestic production and transportation compared to the costs of establishing a production facility in the export market.

Although most international extensions by American firms were in marketing, some companies began to manufacture and to refine outside the United States during this period. As mentioned, the initial forays in foreign marketing activity often led to the later expansion of finishing, assembly manufacturing or refining abroad, as there were instances when merely to have a stake in a foreign sales establishment was insufficient to meet the objectives of the firm and the foreign market. The precise reasons for this varied across firms. Sometimes international production was made to save on costs associated with transportation, warehousing and domestic production, to obtain superior customer service and avoid damage in shipping. However, the decision to engage in international production was often spurred by the emergence of a competitive fringe of local firms producing similar products and the nationalistic policies of foreign governments in important export markets which made the costs of exporting more expensive. Similar reasons have explained the growth of American FDI in Europe in the 1960s in the product cycle model (Vernon, 1966).

Generally, each factory served the particular foreign country in which it was located, except in the case of resource-based manufacturing in Canada, Mexico and South America that was geared towards exports to the United States and sometimes also
Europe. Other American firms in Canada had broader goals. Some started in the Dominion in order to cater to British empire markets and hence take advantage of expected preferential duties (as in the case of Ford Motor Company already mentioned), to use as a base for further foreign investment (the case of Sherwin-Williams whose Canadian affiliate owned the company’s English subsidiary), or as an export platform (the Canadian investments of International Harvester was prompted by the desire to sell to France after the Canadian—French commercial treaty of 1907). There were also investments prompted by the need to escape American antitrust legislation (the case of Alcoa), or to avail of tax incentives (in 1913 there were no corporate income taxes in Canada). These incidental uses of the Canadian subsidiary or affiliate rarely seemed to have been the fundamental motives, but nevertheless enhanced Canada’s advantages as a location for international production (Wilkins, 1970). There were also investments to sell services—mainly utilities and insurance—to cater to the needs of foreign consumers.

Metallurgical companies continued to lead the way in international expansion in the period since the Civil War. Given that Singer was the first American-based corporation with investments in foreign branches, subsidiaries and/or affiliates in the period after the American Civil War, a brief account of the international business history of the company is of interest as a basis for comparison with other American MNCs in the manufacturing sector.

Singer’s forays in international business developed gradually in a way that does not conform exactly to the product cycle model. The firm initiated its international business in 1855 by selling its French patent for the single-thread machine to a French merchant, Charles Callebaut, in exchange for royalties. Between 1860 and 1861, the company engaged in exports, mainly to independent franchised agents in Mexico, Canada, Cuba, Curacao, Germany, Venezuela, Uruguay, Peru and Puerto Rico that sold and advertised Singer sewing machines. By this time Singer had also sent salaried representatives to Glasgow—the site of the company’s initial British sales headquarters for Great Britain and Ireland—and London. The London branch office soon became Singer’s British sales centre as well as the seat of extensive marketing programmes in England, Spain, Portugal, Italy, Belgium, and in the 1870s in France. In 1863, the company established branch offices in Hamburg and Sweden which enabled it to extend businesses throughout Germany, Scandinavia, Russia and Austria-Hungary. The firm built its first foreign factory in Glasgow in the spring of 1867 largely owing to the restoration of the American dollar to its normal specie value in the period after the Civil War and increasing labour costs in the United States, both of which rendered American exports uncompetitive. Furthermore, Singer expected major economies in domestic production costs, freight bills, storage and other incidental expenses with the establishment of its first foreign plant (Wilkins, 1970).

The first factory in Glasgow was initially an assembly operation, receiving parts from America in a partly finished state. At first the orders were for 100 machines every other week. By 1869 the company required a larger factory, with tools sent to Glasgow to manufacture all the parts required to produce 600 machines a week. In 1872, an additional factory was established in Glasgow, and six years later the firm acquired additional space. All this expansion was the result of a continued growth in foreign
demand for Singer sewing machines. Indeed, by 1879–12 years after the first factory opened—the foreign sales of Singer’s sewing machines produced in Glasgow outnumbered domestic sales (Carstensen, 1984). By the end of the 1870s Singer’s worldwide sales surpassed those of the former industry leader, Wheeler & Wilson. Singer had become pre-eminent in the industry both in the United States and worldwide, particularly by the 1880s as its vast foreign sales network and foreign manufacturing plants had been established.29

Singer’s commitment to expand abroad was not unique. In the 1870s and 1880s many American companies in the metallurgical industries sought export markets to dispose of surplus output and obtain economies of scale. This was true of companies producing screws, harvesters, cash registers, elevators, steam pumps, locomotives, locks and guns whose quality was superior to those produced and sold by European firms. Thus, many American metal products companies after having established national sales organizations created international sales networks in Canada and across the Atlantic which provided the most customers. Wilkins (1970) then describes an evolutionary pattern in the growth of the foreign business of most of these metal-working companies (although companies might skip a step or several steps in the process).

In the first stage, the American concern sold abroad through independent agents (through an export person or export or commission houses in New York City) or on occasion filled orders directly from abroad. However, companies frequently started to export using the facilities of international trading firms. In the second stage, the company appointed a salaried export manager, an existing export agency and its contacts, or independent agencies in foreign countries to represent the company. In the third stage, the company either installed one or more salaried representatives, or a sales branch, or a distribution subsidiary abroad, or it purchased a formerly independent agent located in a foreign country. At this point, for the first time, the company made a foreign investment.

In the fourth stage, a finishing, assembly or manufacturing plant might be established to meet the needs of a foreign market. By the mid-1880s all these stages had emerged. In Canada, 47 verified American branch, subsidiary, or controlled affiliated manufacturers were established between 1876 and 1887, many of which were in the metal-working fields (Wilkins, 1970).

While the process of growth of the foreign business of most metal-working companies conforms to the pattern described by Wilkins (1970), such a pattern does not describe the growth process of the foreign business of all metal-working companies, let alone the American manufacturing companies in other industries that also became international firms in the period before 1914. Indeed, the period between 1890 and 1914 described the international expansion of American firms in such diverse manufacturing industries as bicycles, cars, food and drink, electrical equipment, tobacco, films and pharmaceuticals, among other industries. An analysis of the history of international growth of some of these American companies suggests the following trends.

First, the process of growth of international business varies across firms, and even within the same firm in different host countries. The case of the Ford Motor Company is an excellent case in point. Faced with high Canadian tariff barriers, the company—as with other American car companies or their affiliates that followed—started at once to
establish its first foreign factory in Canada. However, the expansion of Ford in England conforms more to the model described by Wilkins above. There, the firm began with agents, before developing a sales branch, and an assembly plant in 1911–12, with a small amount of manufacturing. By 1914 the Model T had become the best seller in England. By then Ford also had a small assembly unit in France and, with a sales branch established in Argentina in that same year, it became the first American car company to establish a direct sales outlet in Latin America.

Second, the sequence described by Wilkins (1970) may be reversed by some firms. For example, the Pittsburgh Reduction Company—the predecessor to the Aluminum Company of America (Alcoa)—started its initial foray in international business by building a plant in France in 1891–92 to enhance its competitiveness in Europe, however unsuccessfully. The firm then initiated aggressive marketing activity in Europe in the period after 1896, and in 1899 established a plant at Shawinigan Falls, Quebec, motivated in part by the Canadian tariff. To circumvent the Sherman Antitrust Act, the company also formed a new subsidiary in Canada—the Northern Aluminum Company—in 1900 to act on behalf of the American parent, including the handling of all the company’s export business and entering into accords with European aluminium producers to regulate foreign business. By 1912, Alcoa established a foreign subsidiary, Bauxite du Midi, a French bauxite company to procure raw materials, and by 1913 Alcoa was looking to South American sources of supply. The investment in foreign bauxite came after the company had been involved in international business for more than two decades. Increasingly, by 1914 certain American corporations were beginning to make both market-oriented investments (sales outposts, manufacturing plants and oil refineries) and supply-oriented investments (mines, oil wells and refineries, farms, packing plants, plus purchasing outposts, etc.) (Wilkins, 1970).

Third, the growth process of international business described by Wilkins (1970) does not take into account the foreign licensing agreements that many American firms engaged in as part of their international business activities particularly in the early stages. In fact, the process of international growth of I.M. Singer & Company or its successor, the Singer Manufacturing Company, described above, showed that the firm initiated its international business in 1855 by selling its French patent to a French merchant, Charles Callebaut in exchange for royalties. Similarly, C.H. McCormick, discovering that exports of American reapers were not competitive in Europe, entered into a licensing agreement with the British firm, Burgess & Key, in 1851 to manufacture and sell reapers. The Edison Electric Light Company Ltd, formed in England in 1881, also had as its fundamental objective to sell, install and license sub-companies. There are other numerous examples of American firms that engaged in international licensing at the early stages of their international business.

American participation in foreign petroleum

The petroleum industry accounted for some 13 to 14 per cent of American FDI in the period between 1897 and 1914 (Table 2.1). Europe and Asia were the major recipients at the turn of the nineteenth century, but Mexico and South America also became
important host countries in the 1900s. These four areas accounted for some 89 per cent of American FDI in the petroleum industry worldwide in 1914.

The position of the United States as the world’s largest oil producing country through to the First World War (Jones, 1996) explains the high export propensity of the American petroleum industry. However, despite the increasingly dominant proportion of domestically refined oil that was exported, most of the exports continued to be sold in domestic transactions to independent export merchants or representatives of foreign importers in the 1860s and 1870s (Wilkins, 1970). It was not until the early 1880s that a more advanced stage in the growth of foreign business of American petroleum companies became evident. This was manifested in the integration of Standard Oil—the best known of all American-based international companies in petroleum—in export marketing and, in a limited number of cases, in foreign refining in response to the imposition by export markets of tariff barriers to refined oil or when there was keen local competition. A brief account of the expansion of the international business activities of this company is instructive. As will become evident, the evolutionary pattern in the growth of the foreign business of American petroleum companies conforms to that described by Wilkins (1970) for metal-working companies.

In 1881, Standard Oil of Ohio—the first Standard Oil Company formed in 1870—acquired an interest in Meissner, Ackerman & Company of New York and Hamburg, a partnership of export merchants with a long history in the oil business. New York Standard, organized in 1882, acquired Ohio Standard’s earlier investment in Meissner, Ackerman & Company and through this company consigned the company’s refined products to Henry Funck & Co. in the United Kingdom. Waters-Pierce, a Standard Oil affiliate, also established an extensive marketing network in Mexico in the mid–1880s. In the mid–1880s with the increased competitiveness of Russian oil in Europe associated with the completion of the Baku-Tiflis line, Standard Oil responded initially by cutting prices, but when this proved inadequate, the firm strengthened its marketing organization in countries where the rivalry was strongest. Thus, foreign subsidiaries were established in the United Kingdom (Anglo-American Oil Company Ltd) and Germany in 1888 and 1890 to enable the firm to observe petroleum trade closely. In both countries, the affiliates marketed American refined oil and placed local business under the company’s direction and control. In addition, since the British affiliate found that it could handle the East of Suez oil trade more efficiently than the American companies, it began to consign in its name Standard Oil products to traders in the key ports East of Suez.

The period 1893 to 1914 saw the Standard Oil companies handling the bulk of American oil exports. Unlike in the period until the mid-1880s, most of its foreign business was increasingly undertaken by its own companies abroad. The firm expanded its own foreign distribution networks through the establishment or acquisition of marketing firms that the firm owned in part or in whole. The result was effective control and management of its own distribution.

There were fewer instances of the establishment or acquisition of foreign refineries by Standard Oil in the period before 1914. The establishment of the first foreign refinery by Standard Oil of Ohio in Galicia was recorded in 1879, but this was closed down in 1886 owing to antagonism against Americans by local producers. Waters-Pierce also began to
refine imported Pennsylvania crude oil in Mexico City and Vera Cruz because of the high import duties on refined oil. Similar reasons prompted Archbold and Conill to establish two refineries in Cuba. These refineries in Mexico and Cuba were built with marketing considerations of the host country in mind. The establishment of foreign refining facilities to overcome local competition occurred in 1898 when Standard Oil bought a controlling interest (75 per cent of the stock) of Imperial Oil Company, a Canadian competitor company that had the largest Canadian refinery and a national marketing network in the 1890s. In turn, the acquisition by Imperial Oil Company of most of the companies and the plants affiliated with Standard Oil in the Dominion and the facilities of small competing refineries assured Standard Oil’s pre-eminent position in Canada.

In sum, although Standard Oil had been pushed by competitive pressures in the 1880s and 1890s to extend its foreign investments, this consisted mainly of marketing and, to a lesser extent, refining. The amount of capital investment remained relatively small as the company had not yet made investments in the highly capital intensive foreign oil production. By the turn of the century, Standard Oil was a large MNC, and beginning for the first time to consider purchasing foreign oil-producing properties as well as buying foreign oil to supplement American supplies of oil. The company had established or acquired control of 55 foreign enterprises with an approximate capitalization of $37 million by the end of 1907.³² In most of these enterprises, Standard Oil held over 50 per cent of the stock, directly or indirectly. Although most foreign enterprises were for marketing, some were transportation facilities, some were refineries and two were fully integrated foreign producers. When in 1911 the United States Supreme Court ordered the dissolution of the Standard Oil monopoly into 34 separate companies, three of the nine companies that retained foreign facilities developed into the world’s largest oil companies, namely: Standard Oil of New Jersey (later known as Jersey Standard, Esso and Exxon), Standard Oil of New York (later known as Mobil) and Standard Oil of California. Jersey Standard obtained the largest foreign assets including the oil fields and refineries in Rumania and Canada, refineries in Germany and Cuba and the marketing network in Canada, Latin America (except Mexico) and Western Europe (except Britain). New York Standard, on the other hand, took over the Far Eastern oil distribution companies. Practically all the nine companies that retained foreign facilities continued to expand abroad after 1911 (Wilkins, 1970).³³

Other American oil companies initiated foreign oil exploration activities beginning from the 1890s. Edward L. Doheny, an independent oil man from California, incorporated the Mexican Petroleum Company in California in 1890, and pioneered the exploration and discovery of Mexican oil in 1891.³⁴ The success of Doheny’s Mexican Petroleum Company and the Mexican Eagle Oil Company owned by Sir Weetname Pearson—the largest oil company in Mexico—led to the further expansion of American and British capital investment in Mexican oil. No doubt stimulated by Doheny’s efforts, the Waters-Pierce Oil Company—one of the nine companies resulting from the dissolution of Standard Oil that retained foreign facilities—whose primary interests was in refining and marketing, acquired some oil lands in 1902. By 1908, with the ascendance of Mexico as an important site of oil extraction and processing, that country became the second largest recipient of American FDI in petroleum worldwide after Europe. By 1911
Mexican oil production reached 34,000 barrels per day, more than half of which was American owned. As mentioned, this enabled Mexico to assume third place in the world’s oil industry in that year, following the United States and Russia.

Between 1911 and 1914, many more American oil companies including the Texas company, Gulf Oil, and the Magnolia Oil Company began to invest in the prolific oil fields of Mexico. Neither civil strife, disorder, forced loans nor taxes associated with the Mexican Revolution starting in 1913 affected adversely the activities of American oil firms in Mexico. Challenged by wells that were then the most prolific producers in the world’s history, their production and exports mounted.

South America also became an important region of American FDI in petroleum, particularly after 1900. Among the most important American petroleum investment in the region was that of Standard Oil of New Jersey in Peruvian oil production with the objective to sell to the west coast of South America. Other American petroleum investments were made in the nascent Colombian and Venezuelan oil industries. By 1914, American petroleum investments in the region surpassed that in Asia and reached $42 million, or more than 12 per cent of American FDI in petroleum worldwide. Although the share remained small, the investments paved the way for larger petroleum investments by American firms in the region in the decades to follow.

**American participation in foreign agriculture**

Agriculture was the fifth most important sector of American FDI before the end of the nineteenth century, accounting for some 12 per cent of American FDI worldwide in 1897. The relative importance of the sector was maintained until 1914. As with American FDI in railroads and mining and smelting, the bulk of American FDI in agriculture in the period until 1914 was directed to nearby regions, namely, Cuba and other West Indies, Canada and Mexico. These areas accounted for between 79 per cent and 84 per cent of American FDI in agriculture worldwide between 1897 and 1914. By 1914 Central America also became a significant recipient of American FDI in agriculture accounting for a share of more than 10 per cent, making the region as important to American agricultural FDI as Mexico. Competition in local agricultural businesses in these nearby regions was often among several American firms or among American and European firms rather than with local firms.

Agriculture was the most important sector of American capital in the Caribbean even before 1898. With an average share of some 50 per cent of American FDI in agriculture worldwide between 1897 and 1914, the region received the largest share of American capital investments in agriculture because of the richness of its natural resources, its proximity to the United States and the provision of American tariff preferences particularly with respect to Cuban sugar. Indeed, in the less developed Caribbean regions, Americans went mainly in search of tropical agricultural produce. Sugar and tobacco were the most important recipients of American FDI in the region and particularly in Cuba at the conclusion of the Spanish—American War. Tropical fruit was also another important area of American FDI in agriculture in the region, with the United Fruit Company being a major investor. Much of the early American FDI in the sector was
made by American commodity traders that integrated into agriculture, particularly bananas and sugar. Only the rare agricultural stakes in the region were made by American industrial companies integrating backward into agriculture production (Wilkins, 1970).

The business history of the United Fruit Company provides an excellent case study of the international expansion of an American firm through backward and forward integration. While its predecessor company—the Boston Fruit Company—acquired the bulk of its fruits through purchases from independent farmers in Jamaica which were then shipped and sold in Boston, the United Fruit Company as it evolved in 1887 engaged in backward vertical integration by acquiring four banana plantations spanning 1,300 acres in Jamaica, and 40,000 acres in Santo Domingo in order to secure a reliable source of fruit. With the formation of the United Fruit Company in 1899 the business owned or leased over 320,000 acres of land in the Caribbean, including Jamaica, Cuba, Costa Rica, Colombia and Nicaragua—properties previously acquired by the Boston Fruit Company and Minor C. Keith, First Vice-President of the company. By 1913, the company owned or leased 852,560 acres, of which 221,837 acres were under cultivation. Although the land was used primarily for the cultivation of bananas, it was also used for the cultivation of orange groves, coconut trees, rubber trees, sugar, cacao as well as the raising of cattle. The dispersion of its properties throughout the Caribbean enabled the firm to spread the risks associated with natural calamities, banana disasters as well as revolution, riot and political unrest. To support these investments, the company invested heavily in infrastructure by installing drainage and water systems and radio communications, and establishing company towns and hospitals in former jungle areas. The company also integrated further into transportation not only by steamship but also through ownership of railroads as previously mentioned or contracts with existing railroads to facilitate the efficient transport of its perishable products (Wilkins, 1970). The fruits cultivated by the firm were shipped primarily to the United States, but the firm also began to ship fruits to Europe facilitated by its acquisition in 1904 of a large stake in Elders and Fyffes—the leading firm in the European banana trade—and its acquisition of full control in 1913 (Davies, 1990).

The integration of the company into fruits cultivation and transportation, with the former enhanced by the introduction of mass production cultivation techniques, enabled the company to become increasingly independent in the supply of its own fruits rather than continue to become dependent on relational contracting with independent companies engaged in fruit production or transportation. Using internalization theory as applied in the case of international production, unified governance provided the most efficient means with which transactions could be organized, involving lower costs compared with those of a market exchange. As firms increased in size and scope, the banana industry became organized increasingly as an oligopoly with stiff barriers to entry (Read, 1983, 1986).

Investments in foreign agriculture assumed further importance for American firms and the American economy around the early 1900s. This was associated with the worldwide surge in demand for rubber from the early 1900s, and the encouragement provided by President William McKinley to American firms to cultivate rubber overseas to meet the
domestic requirements of the United States. Although this led to the emergence of American FDI in rubber, particularly in Mexico and Brazil, the investments then were regarded as speculative (Wilkins, 1974).

Canada was the second most important host region, accounting for 23 per cent of American FDI in agriculture in 1897, and although that share declined to 13 per cent in 1908 owing to the surge of American agricultural investments in Cuba and the West Indies, Canada’s share of American agricultural FDI grew to more than 28 per cent in 1914 (Table 2.1). Unlike in the Caribbean, where American agricultural investments were directed to sugar, tobacco and a variety of tropical fruits (primarily bananas), and in Mexico where American agricultural investments was directed to rubber, chicle, cattle and some tropical fruits, American capital investments in the primary sector of Canada were mainly in timber and timberlands.

**Conclusion**

The period until 1914 was associated with the emergence of American MNCs. With the exception of Standard Oil of New Jersey, Singer Manufacturing Company, International Harvester, New York Life and perhaps a handful of other large companies, many American firms had obtained a foreign stake in only one foreign country before 1914, and international business did not make a substantial contribution to the profits of American enterprises (Wilkins, 1970).

Before the end of the nineteenth century in 1897, the major host countries for American FDI were Mexico (with a share of 31 per cent of the stock of American FDI worldwide), Canada (25 per cent), Europe (21 per cent), the Caribbean (11 per cent) and South America (6 per cent). These countries continued in the same order to be the five largest recipients of American FDI by 1908. The primacy of Mexico as a host country until 1908 was associated with the importance of railroads as one of the pioneering sectors of American FDI in 1897 followed by, and associated with, mining and smelting in 1908. In both of these most important sectors of early American FDI, Mexico was the most important host country. By 1914, American stakes in Mexican oil production was also growing rapidly. The other nearby developing regions in the western hemisphere—the Caribbean islands, Central America and South America—were also important recipients of supply-oriented investments by American MNCs in the period until 1914. While American FDI in the Caribbean and Central America was concentrated in agriculture (sugar, fruits, rubber, tobacco, etc.), that in South America was concentrated in mining.

By contrast, the substantial American FDI in Europe until 1914 was concentrated in refining and distribution of petroleum and in the manufacturing sector. Petroleum was the leading American industry in Europe in 1897, accounting for some 42 per cent of the stock of American FDI in the region, followed far behind by manufacturing with a share of 27 per cent. By 1908, the relative importance of both these sectors was about equal at 27 per cent, but by 1914, manufacturing surpassed petroleum in relative importance with shares of 35 per cent and 24 per cent of the stock of American FDI in the region,
respectively. The high per capita income of the European consumers, their growing demand for American products, the imposition of trade barriers, and the emergence of a competitive fringe of local firms favoured the expansion of American MNCs in European manufacturing. This provides evidence of the relevance of the product cycle model—formulated primarily to explain the growth of American MNCs in Europe in the immediate period after the Second World War—to explain the emergence of American MNCs prior to 1914.

Changes in the relative importance of host countries became evident in 1914, when Canada surpassed Mexico as the largest host country of American FDI, but the relative position of the other host countries remained unchanged. The geographical proximity of the Dominion combined with its high per capita income and imposition of trade barriers led American companies to expand and secure markets through the establishment of a large number of American manufactories in Canada. In addition, the proximity and the presence of rich natural resources there meant that the country also became a convenient and important source of mineral and agricultural supplies (particularly timber) for American firms. These reasons, combined with the difficulties encountered by American businesses in the civil war in Mexico between 1911 and 1914, led to the curtailment of many American businesses in that country, particularly in mining and agriculture. Only petroleum investments in Mexico continued to flourish.

American FDI in more distant areas—Asia, Oceania and Africa—in the period until 1914 was more limited, owing largely to the large risks and costs associated with investments in areas of farther geographical distance, the inaccessibility to American firms of the European colonies in Asia and Africa, low incomes (Asia other than Japan, Oceania other than Australia, Africa), and small markets (Oceania) (Wilkins, 1970).

The principal industries of American FDI in 1897 were railroads (23 per cent of the stock of American FDI worldwide), mining (21 per cent), manufacturing (15 per cent), petroleum exploration, production, refining and distribution (13 per cent) and agriculture (12 per cent). By 1908, railroads descended to become the fifth most significant industry of American FDI, and the other industries moved up one notch in importance in the same order. Thus, mining ascended to become the most important activity of American MNCs abroad with a share of more than 27 per cent, followed far behind by manufacturing (18 per cent), petroleum (14 per cent) and agriculture (11 per cent). The same order of importance was maintained until 1914, except that the significant expansion of American FDI in agriculture at the time led to that sector surpassing petroleum in importance and becoming the third largest industry of American FDI abroad in 1914. In addition, the continuing position of the United States as a significant oil exporter made American FDI in petroleum until 1914 remain primarily in distribution and, to a lesser extent, some refining in consumer countries, although some oil companies had begun to make some investments in foreign oil extraction from the end of the nineteenth century.

The ascendance of mining as the most important sector of American FDI at the beginning of the twentieth century until 1914 is associated with the large capital requirements involved in the initiation of mining projects. This is not a feature that is associated with the emergence of American FDI in the manufacturing sector where investments have grown gradually, in many cases on the basis of reinvested profits.
Nevertheless, despite the smaller size of American FDI in the manufacturing sector compared to that in mining in the period until 1914, the foundations had been laid for the expansion of American FDI in the manufacturing sector in subsequent periods.

Notes

1 Based on data obtained from UNCTAD (1999).
2 Such was the case of the New York merchant John Van Cortlandt, who, when planning to send some 3,000 bushels of wheat from Virginia to Madeira, notified Newton & Gordon, a British concern in Madeira, to sell the wheat and ship the proceeds in good Madeira wines (Wilkins, 1970).
3 For example, the American-born Francis Wilks served the Boston merchant Thomas Hancock in England in the 1730s, followed by Christopher Kilby in 1740. These merchants also represented the Massachusetts Colony in London, combining business and politics (Wilkins, 1970).
4 Sons, cousins, nephews and brothers of the head of the firm went to Jamaica, Curaçao, Antigua, St Eustatius, St Croix, and other islands in the Caribbean to serve the New York houses of Lloyd, Ludlow, Cruger, Livingston, Van Ranst, Cuyler, Beekman and Gouverneur (Wilkins, 1970).
5 For example, defaults on loans extended by American merchants to local (usually Spanish) sugar dealers and sugar estate owners after the end of the Cuban war in 1868–78 led to the emergence of American stakes in Cuban sugar plantations. A case in point is the Atkins family involved in Cuban sugar trade since 1838. By 1882 E. Atkins & Company obtained land holdings owing to a default on a debt to the company by a sugar estate owner (Wilkins, 1970).
6 The flotation of loans was made in association with Baring Brothers, J.P. Morgan and Morton Rose & Company (Wilkins, 1970).
7 The ownership of railroads wherever the United Fruit Company planted or purchased bananas was made to overcome the risks of market failure in the transportation of the rapidly perishable fruit to their final markets. Thus, whereas in its early years the United Fruit Company owned only 71 miles of railroad in the Caribbean, the company had a total of 669 miles of railroad in Costa Rica, Guatemala, Honduras, Panama, Colombia, Cuba and Jamaica by 1914. Including the 163 miles of track of the Costa Rica Railway Company operated by Northern Railway, the United Fruit Company controlled some 833 miles of railroads in tropical America. The Cerro de Pasco Mining Company also had to build 83 miles of railroad to connect with an existing line in the process of mining the ore bodies in the Peruvian Andes which was rich in copper, silver, lead, gold and other minerals (Wilkins, 1970). The Guggenheims similarly added railroads to their Mexican and Chilean holdings to support their extraction and smelting operations in those countries (O’Brien, 1989).
8 American capital was the predominant source of capital in the construction of railroads in Mexico. The other main sources of finance in the construction of foreign railroads was Europe (United Kingdom, Spain and Germany) in the case of the
Caribbean countries and South America, and the United Kingdom in the case of Canada (Wilkins, 1970).

9 Other examples of American capital investments in railroads were those of the Sonora Railway Company (formed by a group of Boston capitalists) in Mexico to break the monopoly of Collis P. Huntington by providing an alternative route to the American West through the extension of the Atchison, Topeka and Santa Fé to the Pacific Coast. In 1881 Huntington and Southern Pacific interests obtained a concession. Over time, Jay Gould, Russell Sage and E.H. Harriman among others made investments in Mexican railways. Similarly, the American railroad entrepreneurs (Erastus Corning, John Murray Forbes and John W. Brooks) invested in the Great Western Railway in Canada in 1849–50 with the objective of establishing a connection between New York Central and the Michigan Central Railroads. The same can be said of the investments by the Northern Pacific Railroad which sought to obtain a Canadian charter to extend its railroads into the Canadian prairies as well as to construct a railway in eastern Canada to connect with the Vermont Central, providing the company with a route to Boston via Montreal (Wilkins, 1970).

10 The largest American capital exports were made in the years between 1898 and 1901 but the United States continued to be a net capital exporter through 1905 even though it remained a debtor nation on international accounts (Wilkins, 1970).

11 For example, technological innovations by American firms in the copper industry since 1879 eventually made possible for the first time the profitable mining and smelting of low-grade ores in Chile. This, combined with the high price of copper in 1904 and the risk-taking nature of American entrepreneurs in their roles as industrialists and financial capitalists, stimulated the interest of American companies in copper mining in Chile (Wilkins, 1970; O’Brien, 1989).

12 Some of these firms were the American Smelting and Refining Company, International Paper Company, International Nickel Company, United Fruit Company, and the General Asphalt Company (Wilkins, 1970).

13 In 1886, the Dominion government raised the export duty on timber to encourage domestic sawmill construction. In 1897, the Ontario government insisted that all timber logged on Crown lands in that province be manufactured in Canada; this prompted the building of American mills in Ontario. Next came the prohibition by the Ontario government on the export of pulpwoods from the Crown lands in 1900, followed by the Dominion Parliament which forbade pulp wood export from Dominion Crown lands in the Prairie provinces in 1907. Other provinces followed suit: Quebec (in 1910), New Brunswick (in 1911) and British Columbia (in 1913) (Wilkins, 1970).

14 The Platt Amendment to the Army Appropriation Bill of 1901, the Cuban constitution drafted in late 1901, and the treaty between Cuba and the United States in 1903 allowed for the intervention of the United States in the preservation of Cuban independence and in the maintenance of a government adequate for the protection of life, property and individual liberty (Wilkins, 1970).

15 A ton of ore could be mined in Mexico for 40 per cent of the cost of mining similar
ore in the United States, assuming that the American miner did twice as much manual work as a Mexican miner (Wilkins, 1970).

16 The Law specified that for 25 years (or until 1915) there would be no new taxes or tax increases in the mining industry (Wilkins, 1970).

17 Since the development of mines required large amounts of capital, typically a few Americans would form a syndicate and raise money from a number of investors or seek funds from Boston or New York financial houses (Wilkins, 1970).

18 Among the most important American investors in Canadian mining between 1870 and 1914 was the Orford Nickel and Copper Company organized in March 1878 after several Americans acquired a mining property in Orford, Quebec in 1877. This small company developed the first Canadian nickel deposits to be used commercially. In 1881, Samuel J. Ritchie established the Canadian Copper Company as well as the Anglo-American Iron Company in Ohio to handle the Canadian business. With the recognition that its mines possessed both nickel as copper, the Canadian Copper Company became eventually the world’s largest nickel producer. In the merger movement occurring in the United States at the turn of the nineteenth century, the $24 million International Nickel Company was formed in New Jersey in 1902 from the merger of the Canadian Copper Company, the Orford Nickel and Copper Company and some other companies. By 1910, American capital also came to dominate the asbestos industry in Canada when the Johns-Manville Company of New York acquired control of a leading Dominion asbestos company. Other significant participants in Canadian mining were the Guggenheims whose interests were in precious metals (Wilkins, 1970).

19 Evidence for this is found, for example, in Alsop & Co. that lost substantial holdings in Bolivian mining when Chileans occupied the Bolivian silver mines at Caracoles in 1879. A handful of Americans began to mine gold in Ecuador in the 1880s, but these were short-lived activities (Wilkins, 1970).

20 The first large-scale American capital investment in mining in South America was that of William C. Braden who acquired the Rancagua low-grade copper mine in north central Chile in 1904 for $100,000. Braden acquired the property on the basis of $625,000 raised on the preference shares of his company, which was also used to build a 35-mile road, establish a community and construct a concentrating plant and a hydroelectric plant. The Chilean investment of W.C. Braden was especially important because of the large size of its initial investment for the period, its long history and the fact that it was the first major entry of American capital into the Chilean copper mining industry—an industry in which Americans played eventually a pre-eminent role. While Braden succeeded initially in developing the mine on his own, he eventually turned to the Guggenheims for financial support. As a result, the Braden Copper Company was established by the Guggenheims in 1908 with a capitalization of $23 million. With the introduction of new techniques, El Teniente—the principal Braden mine—was the first copper company in the world to utilize the flotation process in concentrating low-grade copper ores. The success of this process enticed the Guggenheims to seek more copper properties in Chile. This resulted in the organization by the Guggenheims of the Chile Exploration Company...
(Chilex) in 1912 with $95 million in equity, of which $25 million was used to acquire
a large porphyry copper ore deposit at Chuquicamata in northern Chile controlled by
British interests. A further infusion of an additional $12 million in development
funds raised through a bond issue floated in New York was necessary for the
construction of a railroad, power plant and port. By 1914 development was well
under way at both El Teniente and Chuquicamata—two of the largest Chilean
copper properties of the Guggenheims—with the latter developed into the largest
open pit mine in the world and which introduced a new copper concentration
process utilizing sulfuric acid and electrolytic precipitation. In that year, American
investment in Chilean copper stood at $169 million (practically all of it in these two

21 It was perhaps only the Guggenheims that looked to copper markets in both the
United States and Europe. No American extractive enterprise envisaged the host
country or region as its primary market (Wilkins, 1970).

22 For example, the Guggenheim brothers obtained a Mexican government concession
in October 1890 to build smelters, the first one of which was for lead solely and a
second one for copper and lead. Similarly, Robert S. Towne, of the Consolidated
Kansas City Smelting and Refining Company, built a smelter in the 1890s. For a
time the largest American company involved in Mexican mining and smelting was
the American Smelting and Refining Company (ASARCO), a trust formed in 1899
by all the major lead and silver smelters in the United States with a capitalization of
$65 million. The firm acquired Towne’s Consolidated Kansas City Smelting and
Refining Company and in April 1901 the Mexican smelters of the Guggenheims. In
turn, the acquisition of control of ASARCO by the Guggenheim brothers in that year
enabled them to become the largest American investors in Mexico with 64 or so
mining properties owned or operated by them (Wilkins, 1970; O’Brien, 1989).

23 The investment in Mexico’s first steel plant by the New Yorker Eugene Kelly was
exceptional. In a rare joint venture with the Mexicans, he organized in May 1900 the
Compañía Fundidora de Fierro y Acero de Monterey with a capital of $10 million
(Wilkins, 1970).

24 The final abandonment of unequal treaties between Japan and the United States
gave Japan the opportunity to introduce tariff protection and forced American
businessmen to either invest in Japanese manufacturing or lose the Japanese market
(Wilkins, 1970).

25 These publications predate that of J.J. Servan-Schreiber (1967), The American

26 The first branch manufactory located across the border from the United States in
Canada was not started until 1870 (Wilkins, 1970).

27 In 1866 the first transatlantic cable was completed and other cables followed in the
period between 1865 and 1892, making possible speedy communication in different
parts of the world. By the 1880s, passenger-carrying steamships made the trip from
United States to Europe in five to six days, compared to the steamships in the 1850s
which took nine to ten days (Wilkins, 1970).

28 A separate entity organized in a foreign country was useful for discussions with
European competitors to control production and prices—discussions from which the American company was barred (Wilkins, 1970).

29 By 1881, as Singer’s three Glasgow factories became congested and inadequate the company decided to erect in Kilbowie, near Glasgow, a modern plant equipped with the latest American machine tools and with a capacity equal to the company’s largest American factory. The company soon realized that it could meet the demands of Europe and many other markets more cheaply by producing in Scotland than in the United States. In 1883, Canadian customs duties led to the establishment of a small manufacturing plant in Montreal to supply the Dominion market. A similar reason compelled the manufacture of stands in Austria in the same year. The Russian factory was established in 1901, and employed over 3,000 workers by 1914. The operations in Canada and Austria were small compared to those in Kilbowie and in Russia. However, Singer’s sales in Russia alone accounted for over 30 per cent of its total worldwide sales in 1913 (Carstensen, 1984).

30 This includes the exploration, production, refining and distribution of petroleum. In the period until 1914, the bulk of this was in distribution (see Table 2.1).

31 In the years from 1862 to 1865, between 28 and 59 per cent of domestically refined oil was exported. This increased to 69 per cent in 1866, and never dropped below 64 per cent in the years to 1885. In fact, it soared as high as 77 per cent in 1871 (Wilkins, 1970).

32 The expansion of the company in the Far East proved problematic with the obstacles posed by Royal Dutch Shell (which prevented Standard Oil from buying into its shares in 1898), the Dutch government (which prevented concessions in the Dutch East Indies in 1899), the British (which prevented exploration in Burma in 1902) and large expenses (investments in Japan) (Wilkins, 1970).

33 This was especially true of Jersey Standard and New York Standard. The former enlarged its foreign marketing, refining and producing facilities because it feared antitrust action with sustained domestic expansion. Its foreign deliveries exceeded its domestic deliveries of refined products. A majority of its foreign business consisted of exports of American refined products sold through wholly owned or affiliated sales companies or branches, but between 1912 and 1914 the output of its foreign refineries rose rapidly. Through its Dutch marketing affiliate, Jersey Standard was able to make its first investment in oil concessions in the Dutch East Indies in 1912. In 1913 the firm engaged in oil production in Peru. New York Standard expanded its sales network throughout the Orient and sought to acquire oil-producing properties in Palestine, Syria and Asian Minor. At the time of the dissolution of Standard Oil in 1911, the separate companies were not competitive with one another; each under the old structure had its specific region, function or products which it retained. Standard of California, which would become one of the major international oil companies, had no foreign business in 1911 (Wilkins, 1970).

34 In 1904 the company drilled a well that flowed for nine years and which yielded about 3.5 million barrels of heavy fuel oil. This was in the so-called ‘Golden Lane’—a strip of land about one mile long and 25 miles wide on the Gulf of Mexico—which became the principal source of Mexican oil. The company’s major
bonanza, however, was discovered in September 1910 when the well, Juan Casiano no. 7, yielded 80 million barrels (Wilkins, 1970).

Minor C. Keith—a key American entrepreneur in railroads—raised revenues for the Costa Rican railways by cultivating bananas along its route in the late 1870s. In the 1880s and 1890s the entrepreneur, financed by British capital, acquired additional lands to cultivate bananas, obtaining 10,000 acres of jungle land near Bluefield, Nicaragua, 10,000 acres on the Caribbean side of Panama, 15,000 acres near Santa Marta, Colombia and some holdings in Honduras. Indeed, Keith—more than any other American entrepreneur—was responsible for the expansion of American farms throughout Central America. Before the end of the nineteenth century, Keith was also involved in cattle raising, mining and railroads (Wilkins, 1970).
3
The evolution of multinational corporations from the United States

The period since 1914

Introduction

In the period until 1914—the period of emergence of American MNCs—the principal industries of American FDI were mining and processing of mineral ores, manufacturing, oil production and refining, agriculture and processing of agricultural produce, and railroads. The importance of these American business activities abroad—which flourished under conditions of war and the post-First World War recession—remained broadly unchanged until 1929. Hence, the period since 1914 is associated with the growth and evolution of American MNCs (Wilkins, 1974).

Despite the stability in the industrial structure of American FDI in the period until 1929, there were significant shifts in the relative importance of the major host countries and in the position of the United States from a debtor nation in 1914 (receiving more portfolio and FDI from abroad compared to American portfolio and FDI in foreign countries) to a creditor nation in 1919 on account largely of the growth of American FDI abroad. Such growth enabled American MNCs to pose increasingly a challenge to European hegemony, although European investors still controlled essential raw materials such as rubber, tin and nitrates at the end of the First World War. The American challenge was particularly felt in Canada and Latin America where the gap was narrowing between American and European interests. With the breakdown of European monopolies by 1929, the American business challenge to European investors was profound in the western hemisphere where American FDI ranked supreme and in the United Kingdom.

The analysis of the evolving industrial patterns of American MNCs shows the dominant role of the pioneering investments abroad by American merchants in the late seventeenth and especially the eighteenth century, railroads and mining in the late nineteenth century (which accounted for 23 per cent and 21 per cent of the stock of American FDI abroad, respectively), mining in 1908 (which accounted for 27 per cent), manufacturing in 1929 (which accounted for 24 per cent) and services in 1989 (which accounted for 47 per cent).

This chapter on the evolution of American MNCs analyses these dynamic changes in the industrial patterns and their impact on the geographical destination of American FDI in the periods from 1914 to 1929, from 1929 to the Second World War, and since the
The expansion of American MNCs from 1914 to 1929

The industrial pattern of American FDI

As mentioned, there had been relative stability in the principal industries of American FDI from around 1908 to around 1929. Mining and processing of mineral ores, manufacturing, oil production and refining, and agriculture and processing of agricultural produce continued to be the predominant activities abroad of American MNCs. However, there were important changes in the pattern of American MNC activities within these industries between 1914 and 1929. The following sections examine some of those important changes.

The mining and agriculture industries

The previous chapter showed that early American FDI in agriculture prior to 1914 was determined largely by profitable investment opportunities abroad. The presence of abundant and relatively cheap natural resources in foreign countries in the western hemisphere enticed the emergence of American FDI in this industry. Evidence for this lies in the fact that much of the early American FDI in the industry was made by American commodity traders such as David Beekman and the Boston Fruit Company that integrated backwardly from trading into agriculture production, particularly of bananas and sugar. As mentioned, only the rare agricultural stakes in the region prior to 1914 were by American industrial companies integrating backward into agriculture production (Wilkins, 1970).

Investments in foreign agriculture by American MNCs after 1914 was determined by the need to overcome anticipated potential shortages of raw materials in the United States or to gain access to raw materials that were absent completely in the United States (such as rubber, nickel and nitrates), in addition to the exploitation of profitable investment opportunities in host countries. The size of American FDI in agriculture as well as mining grew both through the expansion of existing industries and the emergence of new ones.

The demands of the First World War provided greater emphasis to the importance of certain agricultural and mining investments to procure nitrates, copper, iron ore, aluminium, nickel, sugar and meat. The direct involvement of the United States in the war between 1917 and 1918 increased the country’s requirements for all these commodities as well as rubber, tin, tungsten and petroleum and led to the further expansion of American FDI in these industries. The need to overcome the total reliance upon London for the purchase of crude rubber and tin forced some American companies to make direct purchases or to extract/cultivate these commodities in foreign countries to fulfill the needs of American domestic enterprises. American firms purchased crude tin directly from Bolivia for smelting and refining in the United States. On the other hand, the three major American rubber tyre companies—U.S. Rubber Company, Goodyear and
Firestone—engaged in backward vertical integration into rubber production or acquired rubber abroad directly to protect their rubber supplies. Their foreign investments were directed strategically to the countries of the Far East that were important sources of supply to the British and Dutch. The growth of American FDI in rubber in the inter-war period was, therefore, different in terms of its determinants and host countries from that in the pre-1914 period when American enterprises speculated in rubber in Mexico and Brazil. The civil strife in Mexico between 1911 and 1914 and the adverse investment climate in that country after 1914 combined with the unsatisfactory experience of the U.S. Rubber Company with respect to their investments in Brazil discouraged the further expansion of American FDI in rubber in these countries.

Other American firms enlarged their foreign stakes seeking fruit (primarily bananas), tobacco, sugar, timber, hemp and other agricultural and forestry products in their quest to become more independent of foreign producers as well as to make greater profits. At the end of the First World War and through much of the 1920s, American investors engaged in agriculture and mining abroad extended their wartime investments as commodity prices remained high.

Apart from the increasing complexity in the determinants and the greater number of host countries of American FDI in agriculture and mining from 1914 to 1929, the investments were also different in another respect. Unlike in the early history of the emergence of American FDI in the primary sector when the investments represented the vertical integration by American commodity traders and the horizontal integration abroad of American mining and agricultural companies, much of the expansion of American FDI in the sector since 1914 was in the form of vertical integration of industrial companies in agriculture production or mineral extraction.

While Cuba and other West Indies, Central America and Canada were the major host countries for American stakes in foreign agriculture until 1914, the same set of host regions with the exception of Canada continued to be important for American FDI in agriculture until 1929. The importance of the Caribbean region as a location became more emphasized with a share of almost 80 per cent of American FDI worldwide in this industry in 1929, particularly in light of the expansion of investments by fruit growers and buyers throughout Central America, the Caribbean Islands and Colombia. The largest among these continued to be the United Fruit Company whose major expansion from the Caribbean to the Pacific coast of Central America in the 1920s enabled the company to be much larger in comparison to its host countries (Wilkins, 1974). The declined importance of Canada as a host country for American FDI in agriculture has stemmed largely from the forward integration of American firms from the extraction of timber to the processing of paper and pulp in that country, as previously mentioned. The relative importance of Mexico as a host country for American FDI in this sector also declined with the nationalization of American landholdings in the 1920s. On the other hand, Asia and the Far East and, to a lesser extent, Africa (Liberia particularly) grew in importance with the expansion of American tyre companies in the extraction of rubber in the region.

American FDI in mining ore processing continued to be directed to South America, Mexico and Canada from 1914 to 1929, although the relative importance of Mexico—the site of large-scale American investments in mining in the period until 1914—declined
since owing to the unstable political situation in that country. Thus, only 14 of the 110 American mining companies with properties in Mexico were able to continue in operation from 1914 to 1919 (Wilkins, 1974). Meanwhile, American mining interests in Chile grew dramatically, accounting for 87 per cent of Chile’s copper output by 1918 (O’Brien, 1989). Indeed, Chile became the single most important host country of American FDI in mining in the 1920s. The foreign mining activities of American firms by the 1920s included asbestos, bauxite, chrome, coal, copper, diamonds, iron ore, lead, manganese, nickel, nitrates, platinum, potash, tin, tungsten, vanadium, and zinc, as well as gold and silver. Investors such as the Guggenheims (directly and through their control of the American Smelting and Refining Company and Kennecott), American Metal Company, Anaconda, and Newmont Mining were important MNCs in the 1920s, all of which with the exception of Kennecott were increasingly becoming more multinational in their operations through their mining or exploration of ores in three or more foreign countries. During the 1920s, the growth of American mining in Latin America was greatest in nitrates and copper in Chile, copper, lead and zinc in Peru, and tin in Bolivia. In addition, American businesses invested in iron ore (Chile and Brazil), manganese (Chile and Brazil), vanadium (Peru), tungsten (Bolivia), gold (Colombia and Ecuador), platinum (Colombia) and bauxite (Dutch Guiana and British Guiana). By 1929, the bulk of the productive mineral resources of South America was owned by American interests (Bain and Read, 1934).

The manufacturing sector

The previous chapter showed that the manufacturing sector has always been an important sector of American FDI, accounting for some 15 per cent of the stock of American FDI abroad in 1897, and some 18 per cent in both 1908 and 1914 (see Table 2.1). Thus, while representing the third-largest sector of American FDI in 1897, the sector became the second single largest sector of American FDI from 1908 to 1928. In 1929, the manufacturing sector became the most important sector of American FDI.

The rapid importance of market-oriented FDI by American MNCs since 1914 was associated with relatively new industries. Hence, the previous importance of metallurgical firms in American FDI in manufacturing gave way in the 1920s to the expansion of industries and firms with trademarked or branded merchandise advertised widely in the United States (such as food and drink, textiles and clothing), as well as firms with distinctive products. American industries with worldwide technological leadership gained abroad from the transfer of techniques in product design and engineering and organization of production (electrical industry, motor vehicle industry, certain metal products, petroleum), as have companies using advanced marketing methods (motor vehicle industry, metal products, petroleum). As in the period before 1914, large companies — typically exporting companies in such industries as electrical equipment, telephone and telegraph, motor vehicles and petroleum — led the expansion of American manufacturing activities abroad in the 1920s, with the exception of suppliers to the motor vehicle industry that followed their American customers, the motor vehicle companies, in their investment forays overseas. More typically, the reason for market-
oriented FDI lay in the business opportunities to be met in the host country and in the fact that the best way to meet those business opportunities was through outward FDI. As in the past, the largest market-oriented stakes in the 1920s tended to be directed to the most affluent nations of the world, those with industrialized and technologically advanced economies and where the markets were largest—Canada and Europe.

The predominance of Canada as a host country for American FDI in manufacturing and its relative importance remained largely unchanged from 1897 to 1929. As in the mining and agriculture industries, the period from 1914 to 1929 was associated with the growth of already existing American factories as well as the emergence of new manufacturing industries in Canadian manufacturing. For example, the emergence of the American abrasives industry in Canada from 1914 to 1916 was prompted by the disruption in 1914 of American imports from Europe of aluminium oxide, emery and corundum—essential raw materials for grinding wheels and abrasives. War-associated factors also prompted the emergence and expansion of FDI in Canada by American companies in the explosives, chemicals and petroleum refining industries, including that of Procter & Gamble whose first foreign plant—a $1 million Canadian plant completed in 1915—was made to counter the virtual domination of the Lever Company of the Canadian economy at a time when the British were preoccupied with the war. Participation in the Dominion war effort also led to two new entries by American firms in the Canadian car industry—that of Chalmers Motor Corp (predecessor of Chrysler) and Willys-Overland—and the expansion of the Ford Motor Company. The inflation in the United States brought on by the war boom also led to the further expansion of American investments in Canadian pulp and paper mills to service the needs of American domestic enterprises that were major users of paper. Four new, large American pulp and paper mills were constructed across the northern border in Canada from 1914 to 1916, attracted by the presence of an abundant supply of inexpensive timber and hydroelectric power, relatively cheap labour and the absence of American duties on Canadian newsprint since 1911. American manufacturing firms continued to expand until the end of that decade, opening more than 200 branch factories in 1919 alone and a large number in 1920 (Wilkins, 1974).

With the search for markets becoming an important facet of the American expansion abroad in the 1920s, there was a sharp rise in the market-oriented endeavours of American MNCs in Canada in that decade. As in times past, the imposition of tariff barriers to trade and the maintenance of a liberal policy on the movements of labour, capital and technology enabled Canada to encourage the growth of American FDI and secure further the position of American business in the Canadian economy. American stakes in Canada in both manufacturing and utilities became overwhelmingly local market oriented.

The position of Europe as the second-largest host region for American FDI in manufacturing remained stable from 1897 to 1929. While some American manufacturing businesses in Europe ceased functioning during the First World War, and in particular in the period between the summer of 1914 and the spring of 1917, many affiliates of American metallurgical companies in Europe were redirected to war production to fulfil the host nation’s or occupying power’s needs. The affiliates were used either as
temporary barracks, or were made to produce airplane parts, shells, munitions and other weapons for the military on both sides of the conflict. The operations of the production subsidiaries on both sides of the conflict during the First World War proved to be profitable. Although the American parent companies retained direct contact with their European subsidiaries and affiliates on both sides of the divide during this period, the various European units usually had no contacts with one another (Wilkins, 1974).

The involvement of the United States in the war between 6 April 1917 and 11 November 1918 had dramatic implications for American business in the territory of the Central Powers. Some 159 American businesses and properties in Germany had been sequestrated by 21 October 1918, and although many of these were not substantial, often comprising a sales branch, a warehouse and a small inventory, a few were large investments such as the German plants of the American Radiator Company, Steinway & Sons and Singer (Wilkins, 1974). On the other hand, American enterprises in the Allied and most neutral nations, including Latin America, Japan and China flourished during this period to meet wartime demands.

American manufacturers took steps in the 1920s both to regain control over their European operations and to initiate new investments in England and in the continent in response to both opportunities for expansion of investments and threats to exports. The promise of European economic growth in the mid-1920s as normality returned to much of Europe (excluding the Soviet Union) was followed toward that decade’s end by growing nationalism and rising tariffs in Germany, France, Italy, Spain, Austria and England. Thus, much of the European stakes by American firms by 1929 reflected the need of American companies to overcome tariffs and to operate plants close to their customers.

By comparison to Canada and Europe, South America was a far less important site for American FDI in manufacturing with a share of between 6 and 9 per cent of American FDI in this sector worldwide in 1919 and 1929. Nevertheless, the region became an important site for major new stakes in manufacturing by American companies since 1914. Unlike in Canada and Europe, American FDI in the manufacturing sector of South America between 1914 and 1917 was less influenced by the war, and became the basis for the further expansion of American businesses in the region particularly in the motor vehicles industry and supplier industries such as rubber tyres. For example, the Ford Motor Company that established a sales branch in Argentina in 1914 also established in that country the first car assembly plant in Latin America in 1916. Studebaker similarly established a sales room, a repair shop, a stock room and an assembly plant in Argentina in 1915. Associated with these investments by American car companies in Argentina were those of the Goodyear Tire and Rubber Company and the U.S. Rubber Company that opened sales branches in Argentina in 1915 and 1916, respectively (Wilkins, 1974).

Apart from Latin America (primarily Argentina), many of the same large American industrial enterprises that sold and then manufactured (or refined oil) in Europe and Canada during the 1920s also invested in Asia, Oceania (primarily Australia) and Africa, but made far smaller capital commitments to search for markets. In these continents, neither opportunities for sale nor threats to exports attracted large investments by American companies seeking foreign markets. Instead, in many instances, Americans
established sales outlets and built service, assembly, packaging and mixing plants rather than full-fledged manufactories. There were no market-oriented oil refineries owned by American companies in all of Asia, Oceania and Africa in the 1920s.

The petroleum industry

By comparison to the period before the First World War when marketing was the predominant motive behind American stakes in petroleum abroad, the period since described the increasing motivations of American petroleum companies to expand abroad in light of both marketing and supply considerations. As had been the case with companies in the agricultural, mineral and manufacturing sectors, the international expansion of petroleum companies in the immediate period after 1914 was influenced initially by the demands of the war in Europe and by rising petroleum prices. This was particularly the case during the direct involvement of the United States in the First World War between 1917 and 1918, but even at the end of that war fears of an oil shortage in the United States influenced the expansion abroad of American petroleum companies in search of foreign oil. Thus, foreign investments in petroleum in the period since 1914 was geared increasingly to supply the petroleum requirements of the United States as well as the established marketing outlets of American petroleum companies worldwide.

These reasons propelled the expansion of American petroleum companies in Mexico and South America—a country and region that had always been important sites for petroleum exploration by American companies since the 1890s with the pioneering investments of Jersey Standard. Although Mexico persisted as the single most dominant host country for American companies in foreign oil production with a share of one-third of American FDI in petroleum worldwide in 1919, a number of investment obstacles in Mexico in the early 1920s—involving the imposition of government decrees on oil nationalization and new Mexican export taxes on petroleum combined with substantial capital expenditures in exploration—encouraged American oil enterprises at the start of the 1920s to seek foreign crude oil in every continent (Wilkins, 1974). As a result, American corporations sought oil in Central America, Colombia, Peru, Argentina, Brazil, Ecuador, Bolivia, Canada, in the vast Soviet oil resources in Europe, the Far East and the Middle East, although American stakes in oil production remained most significant in Mexico and Venezuela by 1929. Indeed, American petroleum companies became involved in oil production in each of the ten largest oil producing countries by 1929, with the exception of the USSR and Iran.

As the assumed petroleum shortage abated in the late 1920s, the enthusiasm for foreign oil development subsided by the end of that decade. At that time, negotiations with governments of host countries began to characterize the entry and expansion of American petroleum companies in many foreign countries. Despite these investment obstacles and the declining prices of crude rubber, sugar, nitrates, manganese and oil in 1929, American supply-oriented ventures in these industries continued to rise in number and scale in order to diversify and control the sources of supply.
The geographical destination of American FDI

Despite the relative stability in the importance of mining, manufacturing, petroleum and agricultural sectors in American FDI from 1897 to 1929, there were significant shifts in the relative importance of host countries. The problems with Mexico as mentioned above led to the slow growth of American FDI in that country. Thus, from being the most important host country of American FDI in the period until the start of the Mexican Civil War in 1911 and the second-largest host country in 1914 after Canada, Mexico had become only the fifth-largest host country for American FDI in 1919. As a result, the former major host regions ascended in importance in the same order with Europe becoming the second-largest host region after Canada, followed by the Caribbean and South America. The growth of new American FDI between 1914 and 1917 outside Mexico, Russia and Continental Europe flourished with the opportunities and the temporary cessation of European competition owing to the war. The majority of American FDI in these regions continued to expand even after the end of the First World War.

With the breakdown of European monopolies by 1929, South America became the largest host country for American FDI, followed by Canada, Europe, the Caribbean and Mexico. The ascendance of South America was largely owing to the expansion in the region of American FDI in petroleum and utilities primarily, and also mining and manufacturing.

The growth of American FDI from 1929 to the Second World War

As noted in the introduction to this chapter, the period around 1929 marked a structural change in the industrial pattern of American FDI. It was the period in which manufacturing became the most important sector of American FDI, accounting for 24 per cent of the stock of American FDI. The other four most important industries in 1929 were petroleum (18 per cent), mining (16 per cent), utilities (14 per cent) and agriculture (13 per cent). Railroads, which was the most important sector of American FDI in 1897, became only the fifth important sector in 1908 and declined further to seventh place by the end of the 1920s. The importance of these industries remained stable until around the end of the Second World War when another structural change in the industrial pattern of American FDI became evident, although less dramatic than that observed in 1929. Some of the salient determinants of American FDI between 1929 and the Second World War are discussed below.

The expansion of American businesses abroad between 1929 and the end of the Second World War was influenced by a number of factors. While the depression of the late 1920s and the stock market crash of 1929 either curtailed or caused many American enterprises to retreat from business abroad, some manufacturing companies felt compelled to initiate international production that would not have been made otherwise had there been no actions by host country governments to achieve nationalism, autarky and
industrialization. This included trade restraints of various forms (tariffs, exchange controls, quotas and sometimes embargoes), as well as policies specifically directed to affect inward FDI either in terms of conditions of entry or operating requirements. This was the case in the United Kingdom and throughout the European continent, Canada and Australia where higher tariffs were imposed in the early 1930s, as well as in Japan where trade restrictions were imposed and emphasis was placed on rapid domestic industrialization by the Japanese government. Indeed, host country government regulations increasingly became the *sine qua non* of international production by American firms (Wilkins, 1974).

However, the surge in the establishment of American-owned factories abroad in this period proved temporary as many ventures failed owing to the depressed economic conditions. American firms in agriculture and mining also reduced their FDI in the 1930s as prices of both mineral and agricultural products correlated directly with the fluctuations in the business cycle. The decade of the 1930s represented the beginning of *retrenchment and retreat* of American FDI (Wilkins, 1974), a trend that was to continue until the end of the Second World War. To the extent that international production took place, this was determined on the basis of negotiations with governments in each host country and by international agreements concluded by American companies.

The unfavourable investment climate in the various host countries in the 1930s also affected the international expansion of American petroleum companies. Nevertheless, the sustained growth of American FDI in this sector was driven by an increasing demand for petroleum as an energy source for modern industry, the need to diversify risks, the availability of capital, the potential for profit and, above all, the need to overcome or stay ahead of competing investments by other oil companies, whether American or foreign.

Several features describe the evolution of American FDI in the petroleum industry in the 1930s. First, there was the reorganization of trade and FDI by American firms as a result of the oil glut, the possibility of sourcing cheap crude oil from Venezuela, the low price of petroleum associated with the economic depression, and the imposition of American tariffs on the entry of foreign oil in 1932. This meant that supplies of refined oil previously exported from the United States to the marketing and distribution outlets of American petroleum companies in Europe were replaced increasingly by cheaper supplies of oil exported from Venezuela. Venezuela remained the predominant source of petroleum in Europe until 1948, when crude oil from the Middle East began to displace oil from Venezuela in importance. Second, the form of international expansion by American petroleum companies in the 1930s was favoured, in some cases, by joint ventures concluded mainly with other western oil companies in light of the prevailing economic depression, the increased political and commercial risks and the high capital requirements for investment. Foreign oil companies in Europe have been expected to participate in national cartel arrangements by many nationalist European governments.

By 1939, American oil companies had invested in 58 refineries abroad, of which 39 were in consumer countries outside of Africa, Asia and Oceania (with the exception of Japan) that imported crude oil, and 19 were in or near oil-producing countries. Ten American oil companies represented well over 90 per cent of American petroleum investments abroad, of which five stood out as large integrated MNCs: Jersey Standard,
Socony-Vacuum, Gulf, Standard of California and Texaco. Those five American petroleum companies together with the British-owned Anglo-Iranian Oil Company and the British and Dutch-owned Royal Dutch Shell comprised the seven largest oil companies in the world at the end of the 1930s (Wilkins, 1974).15

The Second World War exerted a variable impact on the expansion of American MNCs. American businesses abroad encountered new interventions by host country governments or occupying power, as well as increasing government interventions both in the United States and in foreign countries. On the one hand, there was the expansion of American businesses in Canada and Europe where subsidiaries and affiliates of American companies served to fulfil the military and defence requirements of the Allied countries—a theme resonant of the events around the First World War.16 This made the position of American MNCs in the western hemisphere to grow significantly in relation to European MNCs. On the other hand, there was the fragmentation of American businesses in the Axis countries as well as in the occupied countries of Asia and Europe where American plants that had not been sold or destroyed by bombings were geared to serve the Axis war effort. At the same time, the restrictive international agreements concluded by some American MNCs abroad regarded to have an effect on the foreign commerce of the United States came under increased scrutiny by the United States government as a violation of the Sherman Antitrust Act. All these factors meant that the level of American FDI in the immediate aftermath of the Second World War—at $7.2 billion in 1946—remained below its 1929 level of $7.6 billion.

The dominance of American MNCs since the Second World War

**Explaining the expansion of American FDI since the Second World War: the role of financial factors**

Despite the political, economic and military uncertainties abroad in the immediate aftermath of the Second World War, the United States government sought to promote the expansion of all American private investment abroad in ‘politically friendly’ countries starting in Europe and in less developed countries in the 1950s and 1960s.17 The promotion of American private capital abroad served both economic and political objectives: first, it was an important means to recycle the balance-of-payments surplus of the United States in the immediate period after the Second World War; and second, it was an important means to implement American foreign policy to contain communism and to promote democracy in host countries by its impact on economic growth. The prevailing ideology was that economic growth fostered by the export of capital, technology, skills and management by American MNCs was the foundation of a democratic world.

Even as the balance-of-payments position of the United States turned from a surplus to a deficit in the 1950s and more so in the 1960s, American stakes abroad nevertheless continued to rise as indicated by the near tripling of the outward stock of American FDI between 1950 and 1960 from $11.8 billion to $31.9 billion, with the growth particularly high in developed countries.18 One explanation for this is a financial one, and stems from
the United States dollar remaining a strong currency not only on account of the overall balance-of-payments surplus of the United States in the early post-war period, but also on account of the unique role of the dollar as a key currency and a medium of international monetary reserve in the Bretton Woods adjustable-peg system of exchange rates that prevailed from 1944 until 1971. Under this system of exchange rates the dollar came to be overvalued substantially in relation to the currencies of its major trading partners as its fixed exchange rate overstated the worth of the dollar when compared to its market or equilibrium rate. The obligations of the United States to keep the dollar convertible to gold at $35 per ounce meant that it could not devalue the dollar in terms of gold without undermining confidence in the existing system of exchange rates. The overvaluation of the dollar made foreign currencies and, by extension, foreign assets, goods and services cheap in terms of the dollar and contributed to yet higher levels of outward FDI by American firms (Aliber, 1970). Indeed, the growth of American FDI was so rapid that by 1960 the stock of American FDI at $31.9 billion not only exceeded the stock of FDI abroad of the United Kingdom—the largest source country of FDI until then—whose value reached $12.4 billion in 1960, but also the total private investment overseas of the United Kingdom at $26.4 billion (Wilkins, 1974). This enabled the United States to become the largest home country of FDI since the Second World War, a position it has maintained consistently for more than half a century to the present time.

In response to the growing balance-of-payments deficits in the 1960s, mandatory controls on the outflow of American FDI as well as controls on the reinvestment of profits of American businesses earned abroad was imposed for the first time on 1 January 1968.¹⁹ The aim was not to limit American FDI as such, but to limit its negative balance-of-payments effect (Wilkins, 1974). This had important implications on the financing of American FDI during this period. The growth of foreign stakes in market-seeking manufacturing activities associated with the growth of foreign demand was financed almost entirely from reinvested earnings of established foreign subsidiaries and affiliates.²⁰ Borrowing abroad also became a popular mode to finance FDI not only to relieve the balance-of-payments deficit, but also as a hedge against devaluation of currencies, a safeguard against blocked payments and, often, as a convenience.²¹

**The industrial pattern of American FDI since the Second World War**

The United States emerged from the Second World War as the leading industrial nation and American firms persisted as the dominant source of new innovations and thus had a decisive lead in the production of a whole range of technologically intensive producer goods and high-income consumer goods until around the late 1960s and 1970s with the decline of Pax Americana (Dunning, 1985). Manufacturing thus remained the most important sector of American FDI for sixty years from 1929 through to 1989, although there were other more subtle changes in the industrial pattern of American FDI that defined the era since the Second World War.

The most important industries of American FDI in 1950 were manufacturing which accounted for one-third of the stock of American FDI, petroleum (with a share of 29 per cent), public utilities (12 per cent), mining (10 per cent), and trade (6 per cent). Thus,
wholesale and retail trade was defined as a significant sector of American FDI in 1950 associated with the expansion abroad of American mass merchandisers, while American FDI in public utilities and especially agriculture began to become less important. Consequently, although the expansion of American MNCs in public utilities (in particular those in communications and power and light) starting in the 1920s was favoured initially by the strong support of the United States government and the ownership advantages of American firms in the form of capital, technology, management and marketing expertise, their rate of growth slowed down after 1950. 

More significantly, American FDI in agriculture which featured consistently among the five most important industries of American FDI, at least until 1929, declined considerably in importance and never since regained influence as a major industry of American FDI (US Department of Commerce, Office of Business Economics, 1960). This owed much to the depression of the late 1920s and early 1930s which made investments in raw materials a liability as prices of agricultural produce plummeted and agricultural companies recorded losses. The nationalization and expropriation in Latin America from 1933 to 1939 served to exacerbate the adverse investment conditions for American investors holding foreign agricultural properties. By 1950, FDI in agriculture amounted to only $589 million, of which 60 per cent was in sugar production in Cuba and the West Indies mainly, and another 26 per cent was in fruit (principally in bananas) in Central America (US Department of Commerce, Office of Business Economics, 1950).

The bulk of American FDI in manufacturing since the Second World War continued to be directed to western Europe and Canada. The end of the Second World War and the economic recovery in Europe was considered a watershed in the history of American manufacturing in that region (Wilkins, 1974). Indeed, manufacturing became the most important sector of American FDI in Europe by size of investment starting from the 1950s and exceeded the level of American FDI in the same sector in Canada by 1964. This represented a notable change from the previously prevailing pattern when Canada was a more important host country for American manufacturing FDI by comparison to Europe which was a more important host country for American FDI in sales.

The kinds of American manufacturing enterprises that invested in plants abroad in the late 1950s and 1960s resembled closely the investors of earlier years: these were leading firms in their industries in the United States that had advantages in technology, unique products, and a long history of international economic orientation. The fact that an industry was technologically advanced did not ipso facto guarantee large FDI, but it generally meant that leading companies in that industry would, in time, and after finding exports could not continue to fill foreign demand, show an interest in extending their business through investments abroad (Wilkins, 1974). This was the era of American FDI which inspired the development of the product cycle model of Vernon (1966). In the product cycle model, a technologically innovative firm would serve a growing foreign demand for a maturing product through exports initially, and may switch to international production at a later stage when threats to the export business emerge. Similarly, the rank of a firm in American industry was in itself an inadequate explanation of the growth of
FDI of American companies in manufacturing in the late 1950s and 1960s. At least two of these attributes seem to have been a prerequisite for large-scale American FDI (Wilkins, 1974).

Most formal analyses of the determinants of the outward FDI intensity or the propensity of the United States to invest abroad find statistically significant positive roles for R&D intensity and advertising intensity, reflecting the importance of technology and marketing capabilities as key elements of firm-specific intangible assets of American MNCs (see among others, Caves, 1982). Other determinants of outward FDI intensity found to be also important were managerial capabilities and capital cost advantages (Pugel, 1981). Similar findings were concluded by Clegg (1987) who showed that the degree of innovation and the creation of technological ownership advantages as well as capital intensity had highly significant positive influences on American FDI in manufacturing, while the skill level of production workers had a significant negative effect. A related study of the industry-specific determinants of the export competitiveness of American MNCs showed the statistically significant positive roles of R&D intensity and human capital intensity and a statistically significant negative role of labour intensity—an indication of the importance of both research and skilled labour, but not unskilled labour, as driving forces behind the high shares of American MNCs in world exports of manufactures. High advertising intensity, although contributing to the export competitiveness of American MNCs as a whole, fulfilled a relatively more important role in boosting the export competitiveness of foreign affiliates than of their parent companies (Kravis and Lipsey, 1992).

The most important manufacturing industries of American FDI during most of the 1960s when measured in terms of the size of sales of American foreign manufacturing affiliates were in declining order: transportation equipment (primarily motor vehicles and equipment), chemicals, machinery (excluding electrical), food products, electrical machinery, and primary and fabricated metals. Thus, those firms in the vanguard of technology in the late 1950s and 1960s were both in the same (albeit transformed) industries of past decades as well as in new manufacturing industries which emerged rapidly in importance since the Second World War. The acquisition of undisputed world leadership in technology by American chemical companies as well as the severance of restrictive ties between these companies and their British and German counterparts owing to antitrust action and wartime conflict enabled American MNCs in the chemical industry to come into their own after the Second World War. Similarly, the large investments in international production by American car manufacturers in the late 1950s and 1960s reflected not only the strengths of the leading firms in this industry, but also the prominent position of the car industry in all of American industry. Their significant presence in foreign markets made the sales of foreign manufacturing affiliates of American firms in this industry exceed that of all other foreign manufacturing affiliates of American firms in the 1960s (Wilkins, 1974).

Transportation equipment, chemicals and allied products, machinery (excluding electrical), food and related products and electrical and electronic equipment remained the five most important manufacturing industries of American FDI through the 1980s and 1990s, even though the relative importance of the individual industries in American FDI
altered since the 1960s. As in decades past, the expansion of American manufacturing firms through international production enabled the firms to maintain their long-established position in foreign countries, fulfil a growing foreign demand and meet rising foreign competition—explanations that are in line with the product cycle model. The pursuit of profits was not seen as a crucial motivation (Wilkins, 1974). Some market-oriented investments were made to defend existing markets, but many of the investments since the late 1950s and 1960s were aggressive new stakes designed to penetrate new overseas markets. To acquire and hold these markets, international production as opposed to exports from the United States seemed almost a necessity.

Petroleum remained the second-largest sector of American FDI from 1929 until the mid-1960s, when its relative importance began to decline from 34 per cent of the stock of American FDI in 1960 to 26 per cent in 1970, 13 per cent in 1989, and 10 per cent in 1997. Despite the disadvantageous foreign investment climate, the aggressive nature of foreign investments of American oil companies in every facet of the petroleum business in the immediate years after the Second World War owed largely to the growing demand for oil as the most important single source of energy, the perceived shortage of oil resources of the United States as well as profits. Starting in the late 1950s and 1960s, the American oil companies exported not so much new products as improved methods associated with significant process innovations in refining, transportation, production and exploration. While the main stakes in petroleum marketing and market-related activities continued to be concentrated in developed nations where markets were largest, investments in petroleum exploration and production were concentrated in oil-rich developing countries especially in Venezuela and elsewhere in Latin America, the Middle East, north of Africa, west Africa and Indonesia. In the Middle East, in particular, American oil companies triumphed over British—Dutch oil interests starting from the early 1950s (Wilkins, 1974).

Similar demands placed on America’s mineral resources by the Second World War and the frequent forecasts of domestic shortages of minerals (particularly iron ore) ensured that mining remained an important sector of American FDI in the period since the Second World War. Investments in mining iron ore to supply American steel producers were the most significant new stakes by Americans in foreign mining in the immediate postwar years, followed by uranium owing to developments in atomic energy. Over time, the mining of copper, lead, zinc, gold and silver ores accounted for the bulk of investments in the sector by American MNCs. The investments in foreign mining were made by mining, manufacturing and, occasionally, oil companies. A marked change in the number of host countries of American FDI in mining occurred starting in the late 1950s and 1960s owing much to the unfavourable investment environment in Latin America which led American MNCs to seek minerals in Canada and Australia. Latin America, Canada, Australia and Africa continued to be the most important host countries for mineral investments by American MNCs by 1997.

Apart from the five major sectors of American FDI of manufacturing, petroleum, trade, mining and public utilities, American FDI since the late 1950s and 1960s emerged and expanded in finance, insurance and real estate, a wide range of services (business services, car rental and leasing, hotels and lodging, motion pictures, etc.),
communication, and other services-related industries. Their emergence abroad demonstrated a cluster complex in which American companies and American travellers abroad enticed their traditional suppliers into new investment stakes. By around 1989, another structural change in the industrial pattern of American FDI became evident with the ascendance of services—with a share of 47 per cent of the stock of American FDI abroad—as the single most important economic sector for American MNCs. This is associated with the increasing service orientation of the American economy—a feature of the post-industrial status of most developed market economies.

*The geographical destination of American FDI since the Second World War*

Despite American policies in the late 1950s and 1960s to foster the growth of American FDI in less developed countries, an increasing amount of American FDI since the Second World War was directed to developed countries.33 Thus, although by 1950 the book value of American FDI stock in both developed and developing countries was roughly the same at $5.7 billion, the faster growth of American FDI in developed countries since made American FDI in developed countries reach $19.3 billion in 1960 and $51.8 billion in 1970—levels that were 1.7 times larger and 2.7 times larger than their corresponding investments in developing countries in those years, respectively. The growing importance of market-oriented FDI over supply-oriented FDI which started in the 1920s and continued in a major way since the Second World War largely explain this trend.

In particular, the wealthiest nations of the world—those of western Europe and Canada—where there were high levels of income, rapid economic growth, large markets, resources and a favourable investment climate attracted American FDI. The attractiveness of Europe in general, and the large countries of the European Economic Community in particular, since the late 1950s was favoured by the emerging regional prosperity and the movements towards regional economic integration.34 Notwithstanding the persistent dollar shortage in Europe after the Second World War linked to the lag in innovation in that region followed that in the United States (Johnson, 1958), financial factors in Europe also played a role: the convertibility of the currencies of many European countries in 1958 and the formation and development of a Eurodollar market and Eurodollar bond market facilitated borrowing and lending in dollars and helped to change the dollar shortage in Europe to one of a dollar surplus. By 1960, the level of American FDI in Europe surpassed that in Canada for the first time. The growing presence and control of American MNCs in Europe since the Second World War as forcefully argued in Vernon (1971, 1974) and Servan-Schreiber (1967) among others was reminiscent of a similar pattern of events exhibited around the turn of the century when the influx of American manufactured goods in Europe precipitated the works of McKenzie (1901), Thwaite (1902) and Stead (1902).

Nevertheless, Canada remained an important host country for American FDI in the period since the Second World War. American FDI both fulfilled the needs of growing Canadian markets and helped to develop its newly discovered mineral and oil resources. By contrast, although American companies desired to expand their investments in Japan, controls on inward FDI associated with policies of indigenous technological development
would not permit American corporations to play a leading role in the Japanese economy.

In general, developing countries did not attract high levels of American FDI since the Second World War owing to their economic and political instabilities which made the investment climate in these countries unsatisfactory. In the developing countries of Asia, Africa and Latin America, the dramatic rise in the economic power of national governments had a profound impact on the course of American businesses in petroleum, mining, agriculture and manufacturing in the 1960s and 1970s. It became increasingly evident that the growth of American FDI in developing countries would be under terms set by the host governments. In Latin America, government measures served to stimulate the growth of American FDI in some sectors such as manufacturing and discourage new stakes in other sectors. American FDI in the developing countries of Asia and Africa increased, particularly those that took advantage of abundant labour at lower costs or did not benefit from economies of scale. However, with the exception of the Philippines, the size and degree of integration of American stakes in manufacturing in these countries were far smaller than in the developed countries or Latin America—host regions of long interest to American investors. This is largely due to unfamiliarity of American firms with investment in these territories, government restrictions and bureaucracy, and limited markets. By 1987, the book value of American FDI stock in developed countries reached $237.5 billion—a level some 3.3 times higher than American FDI in developing countries of $73 billion. By 1997, the book value of American FDI stock in developed countries further increased to $590 billion—a level some 2.2 times higher than American FDI in developing countries of $267.5 billion. Thus, although there seems to be some evidence to suggest that the gaps between the stock of American FDI in developed and developing countries narrowed between 1987 and 1997 owing to the greater locational advantages of these countries for FDI explained partly in the case of Mexico in the context of the North America Free Trade Agreement concluded in 1994, the developed countries remain the overwhelmingly dominant recipient of American FDI with a share of 69 per cent of the stock of American FDI in 1997.

Conclusion

The period since 1914 described the period of the growth and evolution of American MNCs. The principal industries of American FDI in 1908 consisting of mining and processing of mineral ores, manufacturing, oil production and refining, agriculture and processing of agricultural produce, and railroads remained essentially stable until 1929. Thus, in essence, the primary sector was the dominant sector of American FDI until 1929 associated with the importance of supply-oriented FDI for American MNCs in resource-rich developing countries. In 1929, a significant structural change in the sectoral pattern of American FDI became evident with the ascendance of the manufacturing sector as the most important sector of American FDI associated with the growth in importance of market-oriented FDI in market-rich developed countries of Western Europe and Canada. This pattern persisted for 60 years until 1989 when another structural change in the sectoral pattern of American FDI became evident with the dominance of the services
sector in American FDI. Thus, the dominant sectoral pattern of American FDI traversed the primary, secondary and tertiary sectors of economic activity over the course of more than a century.

Such significant structural shifts in the sectoral pattern of American FDI correlated directly with shifts in the geographical pattern of American FDI. Thus, in the period before 1929 when the primary sector was the dominant sector of American FDI, the resource-rich countries of the Caribbean, South America, Mexico and Canada received the majority of American FDI. The ascendance of the manufacturing sector as the dominant sector of American FDI starting from 1929 led to an increase in the share of American FDI directed to Canada, Western Europe and other market-rich developed countries. These countries have received the majority share of the stock of American FDI abroad since the Second World War and will continue to do so in the future.

Notes

1 The destruction brought by war of American sugar-producing properties in northern France, Belgium and south-western Russia, and the end of sugar exports from Germany and Austria-Hungary led to the further expansion of American investments in Cuban cane sugar to meet the demands of the Allied powers as well as the United States. The war demands for nitrates used for explosives and fertilizers led to the acquisition in 1916 by W.R. Grace & Co.—an American company prominent in the nitrate trade in Chile—of the Tarapaca & Tocopilla Nitrate Company in Chile from its British owners for $3 million. This represented the first backward integration of the company into the ownership of nitrate refineries or oficinas. By selling their Chuquicamata copper interests in Chile, the Guggenheim brothers also acquired an interest in Chilean nitrates, developing in the process a new nitrate production system in 1923 based on refrigeration which permitted treatment in large lots and which out-performed the prevailing Shanks system in its ability to treat ores with a lower assay of 8 per cent as opposed to a minimum of 15 per cent. Similar war demands led to the further expansion of American copper, steel, nickel and aluminium companies as well as the emergence of new ones. Also, the vast meat requirements of European armies led to the expansion of the established meat packing plants of Swift, Armour, Morris and Wilson in South America, as well as the establishment of new ones in the southern part of the western hemisphere and in Australia (Wilkins, 1974; O’Brien, 1989).

2 To support the objective of obtaining tin from Bolivia, W.R. Grace & Co., which was for years established in trade and investment on the west coast of South America, organized the International Mining Company—a large producer of Bolivian tungsten and, to a lesser extent, tin (Wilkins, 1974).

3 With the continued expansion of rubber plantations in the Far East by American tyre manufacturers, the companies obtained some protection against the anticipated higher price of rubber as a result of the Stevenson Rubber Scheme advanced by Great Britain in 1922 to assist British planters in Ceylon and Malaya by restricting
output and raising prices. Firestone also sought to develop rubber plantations in Liberia, tied to a private loan to that country and the improvement of the Liberian harbour to aid rubber exports. This direct investment was exceptional in the involvement of the American government in the loan arrangements. Henry Ford also resolved to grow his own rubber and made substantial investments in planting rubber trees in Brazil in 1927–1928. However, these companies that integrated backward into rubber cultivation were not protected against the fall in rubber prices that occurred in 1929 (Wilkins, 1974).

4 Nowhere was this more evident than in the operations of the various European affiliates of the American Radiator Company. Its factory in Dôle was requisitioned by the French state to provide temporary barracks and to produce shells for their nation’s military needs. The Italian unit of the company pledged to sell semicast steel shells to the Italian government, while their two German plants made cast iron shells for the imperial regime. The plant in Austria manufactured munitions, while that in England—the National Radiator Company Ltd—agreed to supply the Belgians with hand grenades and concluded other contracts with British authorities. The British government took over the large sewing machine plant of Singer in Scotland, where sewing machine production ceased and the plant manufactured airplane parts and munitions instead (Wilkins, 1974).

5 For example, there existed a variety of small American stakes in miscellaneous manufacturing for export such as carpets, hand-woven tapestries and textile mills in China, embroidery in the Philippines, carpet manufacture in Turkey, and jute in India. The various foreign interests of American firms in textiles were exceptional in their motive to gain access to cheap labour abroad with a high degree of skill and dexterity. Most of the investments were made by small American businesses resident abroad, rather than by MNCs (Wilkins, 1974).

6 American petroleum companies, however, were undeterred and continued to expand in the rich and profitable Mexican oil resources. The oil companies escaped major property damage associated with the Mexican Revolution owing to their location along the coastal periphery of the country and by paying for protection (Wright, 1971). Mexico became the second-largest oil producer after the United States in 1918, mainly owing to the large-scale American FDI in the industry. In 1919, practically every sizable American oil company had oil lands in Mexico with total FDI of at least $200 million. Although American FDI in mining in Mexico was higher at $222 million, the petroleum revenues of American companies exceeded the mining revenues of American companies (Wilkins, 1974).

7 The ten largest oil producing countries were the United States, Venezuela, USSR, Mexico, Iran, Dutch East Indies, Rumania, Colombia, Peru and Argentina (Wilkins, 1974).

8 By 1929, efforts by American investors to develop petroleum resources in many countries had been thwarted by host government policies or policies of colonial or imperial governing powers. This had been the case in Asia and Africa where the British and, to a lesser extent, other European governments tried to limit American stakes. The Japanese had also interfered with American FDI in Soviet-held Northern
Sakhalin. The United States government often, but not always, tried to assist American companies in their negotiations with foreign governments (Wilkins, 1974).

9 Based on data contained in Wilkins (1974).

10 This included *inter alia* restrictions on profit remittances, controls on capital repatriation, extensive state intervention, higher taxes, state companies that competed with private enterprises, and nationalization (Wilkins, 1974).

11 For example, American companies encountered an entirely new investment environment in the infantile oil industry of the Middle East. Nationalist fervours in Latin America also worked against large, foreign-owned petroleum enterprises. Foreign oil companies had also become enmeshed in a Mexican government-backed labour dispute. In Japan, the Petroleum Control Bill passed in 1934 introduced price controls, new conditions on government sales and a requirement that six months of oil stocks be held in Japan by all importers and refineries in order to boost Japanese oil reserves. Government policies in Europe also confronted foreign oil companies. Import quotas, exchange restrictions, price-fixing regulations, enforced use of alcohol and other petroleum substitutes, new taxation, blocking of profit remittances, export subsidies and reciprocal trade agreements between foreign countries affected directly the petroleum operations of foreign companies (Wilkins, 1974).

12 Jersey Standard had become the largest American oil producer in Venezuela through its purchase of the foreign properties of the Pan American Petroleum & Transport Company. Although much of this oil was refined in Aruba and then shipped to Europe, some was shipped in crude form at a later stage with the establishment of refineries in Europe (Wilkins, 1974).

13 The principal new joint ventures in petroleum concluded abroad in the 1930s involved the following activities: (1) refining as in the cases of the Société Franco-Américaine de Raffinage and Mitsubishi Oil Company; (2) marketing and seeking oil supplies as in the cases of Stanvac and Caltex; and (3) petroleum exploration and production as in the cases of cooperative efforts in the Middle East, the Dutch East Indies and Latin America (Wilkins, 1974).

14 Of the 58 foreign refineries, 28 refineries belonged to the Standard Oil of New Jersey, 15 refineries belonged to Socony-Vacuum, 7 refineries belonged to Texaco and the rest were refineries of other American petroleum companies. At the end of the 1930s, there were still no American refineries in consumer countries in Africa, Asia and Oceania where, with the exception of Japan, American petroleum companies continued to sell imported refined oil (Wilkins, 1974).

15 By contrast, there had been only three large companies in the world oil industry in 1929: Standard Oil of New Jersey, Royal Dutch Shell and the Anglo-Iranian Oil Company (Wilkins, 1974). The increase in the number of large companies by 1939 had thus been brought about by the emergence and expansion abroad of other American petroleum companies.

16 American subsidiaries and affiliates in India, Australia, Northern Rhodesia, the Gold Coast, Latin America and elsewhere fulfilled a similar purpose (Wilkins, 1974).
17 Wartime destruction had left much of Europe and Japan in ruins and dollar shortages delayed economic recovery. As a result, government restraints in commerce and exchange transactions became the norm, as with currency depreciation in relation to the dollar. American investors feared the spread of communism as well as the general rise of public sector activities abroad. American businesses in foreign countries experienced further sizable losses as a consequence of expropriation in both communist and non-communist countries. These uncertainties abroad more than the threat of antitrust actions in the United States rendered American MNCs to be cautious about FDI. To the extent that antitrust cases affected American FDI, it made American firms realize that the crutch of private international agreements as a means of survival in foreign markets was unsustainable. Thus, as private international agreements regulating trade was past, the way was open for more complex multinational organizations. The development of these more complex organizational structures of American industrial MNCs administered through managerial hierarchies was described by Chandler (1980).

18 Figures were derived from the most recently revised data contained in the US Department of Commerce, *Survey of Current Business*, February 1981.

19 The imposition of mandatory controls was owing to the ineffectiveness of the voluntary balance-of-payments (BOP) programme announced in February 1965 to cope with BOP deficits. This voluntary programme urged some 500 large corporations to improve their individual BOP by raising exports, bringing in more income from abroad, repatriating short-term assets and borrowing in developed countries instead of exporting funds from the United States or reinvesting monies earned overseas. The guidelines applied initially to investments in developed countries, excluding Canada but the guidelines were extended to Canada and the less developed oil-producing countries in 1966. The imposition of mandatory controls on FDI in 1968, however, did not apply to Canada (where American companies were allowed unlimited FDI but were required to report their Canadian transactions) and to less developed countries. In certain other countries (United Kingdom, Australia, Japan and the oil-producing countries of the Middle East), investments would be curtailed; and in industrial Europe no new capital would be allowed to flow from the United States, but a specified percentage share of the profits earned abroad could be reinvested (Wilkins, 1974).

20 Apart from convenience, the use of reinvested earnings to finance FDI also served to circumvent controls on profit remittances by the host country as well as taxes imposed by the United States on dividends, and fulfilled the need of foreign subsidiaries to reinvest before the funds depreciated in value. Thus, despite the paradox of dollar shortages, import licensing, restrictions of remittances, and similar obstacles to foreign trade and FDI in the postwar years, the level of American FDI continued to increase.

21 For a further discussion of the financing of American FDI in the period since the Second World War, see Sestáková (1989).

22 Among the most significant American firms in public utilities were International Telephone and Telegraph and the American & Foreign Power Company. American
FDI in this sector tended to be concentrated in Spain, Italy and the developing countries where the demand for public utilities could not be met by indigenous firms (Wilkins, 1974).

23 In England, where a Labour government had been elected, American companies reconverted to peacetime production while facing state intervention unprecedented in peacetime Britain. On the European continent, war had disrupted operations and it was not until 1946–1948 did the prospects for recovery seem at all promising. Nonetheless, Cold War anxieties, restrictions on foreign remittances and trade as well as government attempts at planning persisted and hindered American FDI in European manufacturing. Nevertheless, some American companies with sales subsidiaries and the desire to keep, renew, or establish markets in soft currency areas did establish new production facilities in Europe (Wilkins, 1974).

24 A case in point was the technologically advanced aviation industry of the United States which was exceptionally slow in embarking in FDI until the end of the 1960s (Wilkins, 1974).

25 For example, the US Steel Corporation which ranked among the top 12 companies in sales in American industry for several decades was not a prominent player in international production. In the period of the company’s technological leadership in the early 1900s, the firm met foreign demand through exports or the establishment of sales outlets abroad but did not engage in international production to a great extent. By the late 1950s and 1960s the company lacked the technological leadership in world industry as well as a network of foreign plants to provide a basis for major expansion, unlike the leading American car companies. The growth of its outward FDI since has been more significant in mining than in manufacturing (Wilkins, 1974).

26 The FDI intensity is measured typically in one of two ways: the first is in terms of the ratio of some measure of the size of FDI activity in the industry to the total size of the industry. Size can be measured by value added, assets, employment or profits (Pugel, 1981). Alternatively, FDI intensity can be measured in terms of degree of penetration in particular host countries (Pugel, 1985).

27 Export competitiveness was measured as the share of American MNCs in exports of manufactures of the market economies (Kravis and Lipsey, 1992).

28 In a similar fashion, the pioneering American firms in the meat packing industry that had gone abroad before the First World War was a reflection of the fact that the industry once belonged to the five largest American industries in revenues. The industry declined in importance by the 1960s, and its leading firms no longer made significant foreign investments, thus mirroring their loss of position in American industry (Wilkins, 1974).

29 For example, the most important manufacturing industries for American MNCs by the size of outward FDI stock in 1987 were in declining order: chemicals and allied products, machinery except electrical, transportation equipment, food and related products, and electrical and electronic equipment. By 1997, the most important manufacturing industries of American MNCs were in declining order: chemicals and allied products, food and related products, transportation equipment, electronic and
other electrical equipment, and industrial machinery and equipment. The above statements were based on data contained in US Department of Commerce, *Survey of Current Business*, August 1992 and October 1998 for the 1987 data and 1997 data, respectively.


31 The investment obstacles faced by American petroleum companies ranged from antitrust action at home to expropriation risks (in Eastern Europe and China), creeping exports (in many countries), political instability, labour difficulties, dollar shortages, restraints on trade and payments, investment control laws, legislation excluding their participation, foreign government intervention, etc. Despite this, the stock of American FDI in petroleum grew the fastest—by 142 per cent—between 1946 and 1950, while that in manufacturing and mining grew more modestly at 60 per cent and 41 per cent, respectively (based on data in Wilkins, 1974).

32 As in the past, mining companies engaged in foreign mining when faced with shortages at home and the need to supplement domestic or world resources with cheaper sources of supply. Manufacturing companies invested in mining abroad to obtain raw materials. For example, the aluminium companies sought bauxite, the steel enterprises sought iron ore and various types of manufacturers sought specialty metals such as manganese and chrome. Oil companies moved into foreign mining as part of their diversification strategies (Wilkins, 1974).

33 The United States government guaranty programme for new investments that was initiated with the European recovery plans in the immediate aftermath of the Second World War was applied exclusively to underdeveloped nations in the late 1950s and 1960s. The Agency for International Development acquired other functions to encourage American FDI in less developed countries: making dollar loans to private American investors abroad, conducting foreign investment surveys and giving information on investment projects. This was complemented by government measures to protect investments such as, for example, the Hickenlooper Amendment to the Foreign Assistance Act in which foreign aid to a particular nation would be withdrawn should any expropriation of American properties after 1 January 1962 not be followed by prompt and adequate compensation (Wilkins, 1974).

34 The Treaty of Rome creating the European Economic Community (EC) was signed by the governments of Benelux, West Germany, France and Italy on 25 March 1957. When negotiations for the United Kingdom’s entry into the EC collapsed in January 1963, American businesses that expected to export from Britain to the continent began to make new investments in the EC (Wilkins, 1974).

35 For example, American investors made some supply-oriented investments in electronic plants in South Korea, Taiwan and Hong Kong in the 1960s to take
advantage of cheap labour with a high degree of dexterity. The output was sent to the United States or was incorporated in final products in a third country (generally Japan) for sale in that country, the United States or even in a fourth country (Henderson, 1989).

36 American companies also gained entry in European colonial territories, although the level of their stakes did not exceed those of the imperial power. Generally, American investors acted through companies incorporated in the imperial nation and used managers of the nationality of the imperial power. With independence, Americans invested directly and dealt with national rather than imperial sovereignties (Wilkins, 1974).

The emergence and evolution of multinational corporations from Sweden

Introduction

Although a far smaller country than the United States, the resource abundant country of Sweden has always been engaged actively in outward FDI and engendered one of the oldest MNCs in the world economy. By 1960, Sweden accounted for 0.6 per cent share of the global stock of outward FDI which increased significantly to 1.7 per cent in 1975 and 2.9 per cent in 1990, but its share declined slightly to 2.3 per cent in 1998 despite the near doubling of its stock of outward FDI between 1990 and 1998. Notwithstanding the low relative importance of Swedish FDI, the study of the emergence and evolution of Swedish MNCs is of interest not the least because although Sweden has a far smaller domestic market, the growth pattern of their MNCs can be compared to that of American MNCs whose home country shares a similar natural resource abundance.

Swedish MNCs feature among the most important companies in Sweden—accounting for more than half of the domestic industrial workforce and more than half of the country’s exports in the 1990s (Olsson, 1993). Although an overwhelming proportion of its outward FDI has always been concentrated in a few firms, the population of Swedish MNCs consist of many small firms. Thus, the analysis of Swedish MNCs shows that size of firms is not a useful indicator of the propensity to engage in outward FDI, and that the determinants of international production does not always derive from oligopolistic market conditions. Rather, it is the size of the firm relative to its home market that determines the propensity to engage in international production. Firm size is more a reflection of a firm-specific advantage than a major source of such an advantage (Swedenborg, 1979).

There is a rapid process of internationalization through exports and international production by Swedish firms owing to the need to overcome the limited size of the domestic market. Internationalization of sales and manufacturing operations were motivated mainly by the desire to expand markets and attain economies of scale. Indeed, Sweden—as with small countries in general—has had earlier forays into international markets and a relatively larger international economic involvement by comparison to the United States (Swedenborg, 1973). Hence, Swedish firms, as with firms based in other small countries such as Switzerland and Singapore, have always had an offensive and aggressive market expansion strategy (see Chapters 13 and 15). Newly established Swedish firms with a significant competitive advantage (often a superior technology) became international companies typically after only a few years, and many technology
intensive smaller firms felt the need to increase sales and sustain growth outside the confines of a rapidly saturated small domestic market. The choice between exports and international production tended to be determined by the balance of locational advantages in the home and host countries. International production in host countries was favoured by trade barriers and/or high transportation costs, the need to establish closer ties with local customers to support sales and the need for a local presence. Foreign plants served to maintain or increase foreign sales through the final assembly of products and/or modifications or adaptations of products designed essentially for the Swedish market. The local adaptations associated with international production have led, in some cases, to a broadening of the product range, but rarely had an impact on basic product design or new product development for the Swedish firm. Neither did international production involve the most skilled labour or relationships with local research institutions in foreign countries (Sölvell et al., 1991).

In the interest of achieving consistency with Olsson (1993), the analysis of the history of Swedish MNCs in this chapter covering the major determinants of Swedish FDI and their industrial and geographical patterns is conducted in three time frames: the late nineteenth century to the First World War, from the First World War to 1960, and from 1960 to the present.

**The emergence of Swedish MNCs from the late nineteenth century to the First World War**

During the period of the emergence of Swedish MNCs in the late 1800s and until the beginning of the twentieth century, there were two main groups of Swedish export industries (Olsson, 1993). The dominant group of Swedish export industries were those based on raw materials (wood, pulp and metal ores) whose principal markets for centuries were the more industrialized countries of Europe. Between the beginning of the twentieth century and the First World War, half of Sweden’s exports comprised forestry products sold mainly to Great Britain and iron and steel sold to Germany, and a further third by agricultural products such as oats and butter (see also Hörnell and Vahlne, 1986). Indeed, it was the industrialization of Great Britain and the subsequent expansion of building and construction activities in that country that led to the substantial increase in demand for timber products from Sweden between 1850 and 1880. Similarly, industrialization in other parts of Europe (particularly Germany) led to increased demand for iron and steel where Sweden had a comparative advantage in production owing to its favoured access to energy (charcoal). Since Swedish legislation prohibited foreigners from owning Swedish land, these staple industries remained largely in the domain of domestic firms. Raw materials continued to describe the export pattern of Sweden even until 1953 when it accounted for some 43 per cent share of merchandise exports; such share, however, has declined rapidly since (based on data in Söderström, 1980). Firms in the industries of mining, metal production and forestry developed their domestic production based on numerous small units in close proximity to the sources of raw materials and energy, and their exports were handled typically by merchant houses based in the major ports of
Stockholm and Gothenburg that also provided working capital (Carlson, 1977). These firms became MNCs only to a very limited extent.

The second group of export industries comprised those of modern engineering generally consisting of metal manufactures, machinery and transport equipment whose growth was fostered by the presence of abundant natural resources in Sweden. In combination with export earnings from wood and iron products which financed the establishment of new industrial companies, the technical and metallurgical know-how developed from iron and steel production proved useful to the development of the modern engineering industry in the industrialization phase between 1870 and the First World War (Lundström, 1986). The long tradition of metal manufacturing based originally on iron and steel production from the local presence of abundant high-quality iron ore was enhanced by other country-specific advantages to include major investments in technological education and training, the large degree of trade orientation and the close personal contacts within the Swedish industrial establishment which favoured the rapid absorption and adaptation of technological innovations, and their application in modern industrial production in the engineering industry (Nabseth, 1974). The growth of specialized engineering firms was a manifestation of an emerging structural change in the domestic production and export patterns of Sweden. Since these firms were geared towards exports at an early stage in their development, the country developed rapidly a more advanced export industry based on engineering products in addition to the more traditional, staple oriented ones (Olsson, 1993). However, unlike the firms in the staple industries, the high-quality steel mills and the new industrial companies based on mechanical engineering established direct contacts with foreign markets by employing travelling salesmen (Hörnell and Vahlne, 1986) owing to increased product differentiation (e.g. production of special steel versus ordinary steel), and the necessity to have intimate knowledge of market developments and to adapt products to customers’ particular needs (Carlson, 1977). Their growth enabled Swedish exports to have a wider geographical scope to include not only the leading industrial countries of Europe, but also developing countries. Russia was, in fact, the largest foreign market for the Swedish engineering industry at the turn of the century (Lundström, 1986). The rapid change in the industrial and geographical pattern of its exports enabled Sweden to occupy an important position in international trade.

Unlike the firms based in the raw materials industry, most of the early FDI of the early exporting firms in the engineering industry stemmed from the need to establish a firm market presence abroad. Indeed, Swedish MNCs have come to emerge and evolve in the engineering industry and not in the raw materials industry. Thus, during the period of the emergence of Swedish MNCs in the late 1800s there seems to have been a disparity in the industrial distribution of exports and outward FDI of Sweden and, hence, greater scope for substitution between these two alternative modes of internationalization. Indeed, one striking difference between Sweden and the larger sized but also resource-rich United States lies in the relative importance of outward FDI to exploit foreign raw materials during the period of emergence of their MNCs. This is explained in the context of the development of competitive advantages by Swedish industry in the extraction and processing of domestically available raw materials in a small country in relation to the
large scale in which most investment in raw materials is undertaken typically (Swedenborg, 1979). The lesser significance of outward FDI in raw materials and the increased propensity of engineering firms to engage in outward FDI has made the manufacturing sector the most important sector for Swedish MNCs during the period of their emergence.

The growth of the engineering industry as an outcome of the Swedish industrialization phase between 1870 and the First World War can thus be regarded as the period of emergence of Swedish MNCs. The first Swedish MNCs consisting of technologically innovative firms in the engineering industry came into their own starting around the late 1800s, and their emergence can be explained as much by the need of firms from small countries to pursue an offensive and aggressive strategy to search for markets as by the need to overcome the threat posed to exports growth by the trend towards international industrial protectionism and high transportation costs. Through international production supported by large, internationally oriented investment banks and the government, the process of internationalization of Swedish firms proceeded in this period of dynamic industrial change.

The traditional pattern of a gradual process of growth and development of innovative Swedish engineering firms can be regarded as consistent with that of firms from larger domestic markets: after mechanizing and specializing in a technically advanced product, firms secured the home base and engaged in exports to achieve scale economies; this was associated with the use of a network of agents or representatives (or travelling salesmen) and then by the establishment of a sales subsidiary abroad; and, finally, by the initiation of international production. This incremental process of establishment which has been described as an ‘establishment chain’ by Johanson and Wiedersheim-Paul (1975) can also be analysed within the framework of the product cycle model of Vernon (1966). There were, of course, exceptions to this growth pattern in some Swedish firms. The substantial growth of Svenska Kullagerfabriken (SKF)—the ball and roller bearing company formed in 1907—was initiated and established in the most important large-sized foreign markets of Britain, France, United States and Russia. It was only with the standardization of production and the industrialization of Sweden that the home market assumed significance to the firm. This was owing to the preference of Swedish consumers and industries for the old type of ball bearings made in Germany, unlike the consumers in Britain, France and the United States that preferred ball bearings made in Sweden (Lundström, 1986). Some other firms often had to wait for the domestic market to be large enough or modern enough to become the market base for a more specialized product (Olsson, 1993). Other exceptions emerged in cases where there was a necessity to engage in international production at once and bypass exports in order to gain access to an important foreign market. This was the case when the foreign customer was a public authority and therefore it became an outright requirement to have a local presence by the initiation of international production. This factor influenced largely the rapid development of some Swedish firms to become MNCs in this period. Among these were firms engaged in the production of generators and turbines for hydroelectric plants (ASEA), beacons and lighthouses equipment (AGA), and telephone systems (Ericsson) (Olsson, 1993; Lundström, 1986).
To the limited extent that Swedish firms in industries based on raw materials became MNCs in this period, this took the form of backward vertical integration in foreign countries. This was evident in the case of some firms in the forestry industry which tried to enlarge their own timber supplies by establishing subsidiaries in Finland and Russia, and to manufacturing firms that aimed to secure the supply of aspen splint for match fabrication (Swedish Match), cork (Wicander), or that attempted to produce chromium for steel production (Sandvik) (Olsson, 1993; Lundström, 1986). Forward integration by firms in staple industries to establish production closer to final markets abroad as well as horizontal integration to exploit accumulated know-how in resource extraction and processing in foreign markets belonged to a much later stage in the history of the growth and development of Swedish MNCs (Olsson, 1993).

The growth of Swedish MNCs from the First World War to 1960

The First World War reinforced the importance of international production both for political reasons and because of the physical barriers to trade that resulted from the hostilities. The political neutrality of Sweden during the war enabled the continued expansion of their MNCs in a way that was less possible or more difficult for firms from aligned countries. The Russian Revolution of 1917 had perhaps a more profound negative impact on Swedish MNCs than the First World War since this led to the disappearance of an important export market (Russia), and the nationalization of several subsidiaries in that country without compensation (see Lundström, 1986).

Despite the slow growth in the 1920s, Sweden continued its industrial transformation through technological knowledge accumulation and, as a consequence, developed into a modern industrial nation. Several new Swedish MNCs were established in the export-oriented era of the 1920s, and in particular by firms within groups of industrial companies created in the inter-war period by the leading commercial banks. The rationale for international production was to circumvent trade barriers and to build commitment in important foreign markets. As a result, Sweden started to became a net exporter of capital, much of it in the form of FDI. By the end of the 1920s, there were at least 50 companies with production subsidiaries abroad (Lundström, 1986). The most notable of these companies was the Swedish Match Company which had no less than 144 producing units abroad in 33 different countries. In many ways, the match empire established by the Swedish entrepreneur Ivar Kreuger was an exceptional Swedish MNC, not only in terms of its large size but also in terms of its method of internationalization. The latter ran the gamut of large-scale acquisitions to funding large state loans in return for obtaining national match monopolies in no fewer than 15 countries, and other means of ruthless oligopolistic power play including negotiated price and trade agreements with the other large match companies in the world (Hassbring, 1979; Lindgren, 1979; Wikander, 1980).

The international depression of the 1930s led to the reduction in significance of international trade owing to increasing tariff barriers and trade wars. The share of Swedish exports to GNP declined substantially in this decade by comparison to the two
preceding decades, and not until the 1960s was the share back to its level in the 1920s. There was also a smaller number of new Swedish MNCs established in this decade than during the previous decades (Sölvell et al., 1991). For those few firms that initiated international production in this decade and for already established MNCs, the impetus to international production was provided by host country-related locational advantages owing to trade barriers, high transportation costs and political factors. Indeed, most Swedish MNCs reported relatively high financial gains between the mid-1930s and 1944 comparable to that of the period up to and including the First World War (Wohlert, 1989). The tendency for fewer Swedish manufacturing MNCs to be established grew even stronger in the 1940s and through the Second World War. Recovery was not forthcoming until the 1950s when the number of new manufacturing MNCs established reached those before the crisis of the 1930s.

Unlike in the First World War, the Second World War led to the destruction and loss of property of Swedish MNCs in Eastern Europe, and involved risks to Swedish MNCs generally despite the continuing political neutrality of Sweden. Despite this and the reduced foreign trade during this period, the volume of domestic production and profits in the engineering industry was maintained owing to the industry’s strategic importance to the national rearmament process initiated in the mid-1930s. In particular, the production of defence material provided an important technological impetus to the industry and many firms were established with the support of the government. Indeed, some of the most research intensive firms of the engineering industry in the period after the Second World War profited from large state orders associated with the heavy investment in a domestically based technologically advanced armaments production involving leading engineering firms (Olsson, 1977). The period of rearmament thus formed an important basis for the further growth and development of Swedish industry and MNCs in future years (Olsson, 1993).

The development of Swedish MNCs from 1960 to the present

The development of Sweden into a technologically sophisticated industrial country since the Second World War (Wohlert, 1989) in combination with international economic growth and the liberalization of world trade had profound and positive effects on its exports and international production. Although the share of exports to GNP reached 35 per cent during the 1970s, foreign trade was forming a smaller part of the international economic activities of Swedish firms compared to international production that was playing an increasingly important role. Indeed, Swedish outward FDI increased strongly from the 1950s onwards (Hörnell and Vahlne, 1986).

As in previous eras, international production in this period was carried out mainly by industrial firms reflecting the stability in the industrial structure of Swedish MNCs, although firms from other sectors have increased their outward FDI in more recent decades. In the mid-1980s, some three-quarters of the total outward stock of Swedish FDI continued to be accounted for by industrial firms, while the remaining was owned by companies in the financial and service sectors. This owed partly to the liberalization of
foreign exchange controls in Sweden as well as investments in financial assets and property abroad which resulted in much of the annual growth in Swedish outward FDI since 1987 accounted for by large property investments abroad (Olsson, 1993).

The period since the 1960s described a metamorphosis in the process of internationalization by some Swedish manufacturing companies away from the traditional and gradual pattern of an establishment chain described by Johanson and Wiedersheim-Paul (1975) towards a more rapid and direct process described by Nordström (1991) owing to a combination of factors to include firm characteristics (other than knowledge and experience), host country characteristics and home, host and international industry structures. As a result, there has been an increasing tendency for Swedish manufacturing companies that initiated the internationalization process since the 1960s to leapfrog some of the stages of establishment by having sales as well as production subsidiaries abroad at an early stage, to invest in relatively more distant foreign countries that have market potential (such as the United States) at an early stage with the use in many cases of the modes of acquisitions and cooperative ventures rather than greenfield investments and the establishment of wholly owned foreign subsidiaries.

Thus, while acquisitions accounted for less than 40 per cent of Swedish outward FDI in the 1960s, this proportion increased rapidly to over 60 per cent in the 1970s (Hörnell and Vahlne, 1986). Some 75 per cent of all foreign subsidiaries established by Swedish firms between 1979 and 1986 were acquired rather than started as greenfield projects, including those developed out of sales or service companies. This is associated with the need of Swedish firms to accelerate rapidly the internationalization process by obtaining new technologies, a product range or brand name, a net of subcontractors, a sales organization, or to gain rapid market share in both very fast and very slow growing industries (Olsson, 1993; Nordström, 1991). Sometimes, foreign acquisitions were made as part of structural rationalizations of companies in which firms focus their efforts narrowly on products and applications that emerge from their original technological specializations. Acquisitions of other enterprises within the same lines of production served to enhance the specialization of inventive Swedish enterprises within the engineering industry. However, even less R&D intensive industries or firms (e.g. Esselte) have chosen to move away from unprofitable business activities towards more profitable ones by the acquisition of other enterprises in more profitable lines of activities (Söderström, 1980).

The 1960s and 1970s marked the rapid growth in international production of the forestry firms in the form of vertical integration achieved through the full or partial acquisition of their major foreign customers—a move in response to the entry of the North American pulp and paper firms in Western Europe at the end of the 1950s (Carlson, 1977). Billerud, presently owned by Stora and SCA, featured among the most internationally active Swedish firms in the pulp and paper industry in the 1960s. Other firms with foreign plants included ASSI, Fiskeby, Korsnäs-Marma, NCB and MoDo (Sölvell et al., 1991). Apart from the few examples of firms in the forestry industries engaging in outward FDI to gain access to raw materials in Canada and the United States, and the production of pulp based on domestic raw materials in Portugal, Canada and Brazil (Söderström, 1980; Olsson, 1993) to safeguard their future expansion, the more
recent pattern of outward FDI by Swedish firms in resource-based industries was quite unlike their more limited FDI in the form of backward vertical integration in resource extraction between the late 1800s and 1914. Forward integration by firms in staple industries to establish production closer to the final markets abroad as well as horizontal integration to exploit accumulated know-how in resource extraction and processing in foreign markets was motivated as much by the profitable exploitation of accumulated know-how and skills in extraction and processing of natural resources (Swedenborg, 1979) as by the need to gain market knowledge and to influence product development in the pulp- and paper-consuming industries (Carlson, 1977). In the early 1970s, the Swedish pulp and paper manufacturers had established more than 40 manufacturing plants abroad, mostly in the United Kingdom and Germany, and the further growth of their European investments in the 1970s and 1980s enabled the Swedish pulp and paper companies to build dominant market positions (Sölvell et al., 1991).

After the domestic industrial crisis of the 1970s when the traditional industries producing pulp and paper, minerals, metal and steel, shipbuilding, etc. experienced heavy setbacks and underwent painful restructuring, the technologically more advanced and more internationalized engineering firms displayed better ability to adjust. The emphasis thereafter laid on upgrading domestic production as reflected in the significant reduction in the share of merchandise exports derived from raw materials (wood, pulp and metal ores) from 43 per cent in 1953 to 12 per cent in 1978, and a dramatic increase in the share derived from specialized and rather advanced engineering products from 24 per cent to 47 per cent over the same period (based on data in Söderström, 1980). As a result, there had been a rapidly increasing congruence in the industrial pattern of exports and outward FDI of Sweden since 1953.

Developed countries continued to receive a dominant share of Swedish FDI in the period since 1960, with some 83 per cent of employment in Swedish manufacturing subsidiaries abroad (Olsson, 1993). This was because Swedish industry regarded it as necessary to invest within the tariff walls of the emerging regional market of the European Community (EC) during the 1950s and 1960s, while Sweden as a member of the European Free Trade Area (EFTA) could service the markets of the other EFTA member states more efficiently through exports (Hörnell and Vahlne, 1986). The free trade agreement concluded between EFTA and the EC in 1972 combined with the expectation of slower growth in Europe and the high market shares already held by Swedish firms led to a slowdown in the growth of Swedish FDI in the EC, and to a corresponding growth of FDI in the United States during the 1970s and 1980s.13 Regardless of the physical and psychic distance, the large size, technical sophistication and growth potential of the United States market attracted not only small and inexperienced Swedish manufacturing firms that began their internationalization process after 1977 but also large, already well-established Swedish MNCs particularly in industries with a high degree of international competition (Nordström, 1991).

The renewed importance of Europe for Swedish FDI since 1986 took place in the context of the formation of the Single European Market and the expectation of rapid growth and dynamic industrial development as well as the continuing uncertainty about Sweden’s future relations with the EC. Pulp and paper firms have been inclined to invest
in the EC, as mentioned, particularly in the last stage of the production process. Thus, through vertical integration, Swedish pulp and paper firms secured important segments of the final markets in Europe, and some firms, such as Stora and SCA, consolidated their leading positions in Europe through larger acquisitions (Sölvell et al., 1991). Similarly, the more established skills-intensive engineering firms carried on investing in Europe to gain larger shares of a growing market, while the younger, highly specialized and R&D intensive firms became MNCs to gain a foothold in the European market. As a result, there was a doubling of outward FDI flows in the EC in every year from 1985 to 1988 (Olsson, 1993).

Since the 1980s, the importance of production and sales in Sweden for Swedish manufacturing companies—including those in the resource-based industries—continued to decline by comparison to their production and sales abroad. This confirms a general trend that domestic and foreign production do not grow at the same rate over time, with domestic growth preceding growth in foreign markets typically in the early stages, but growth through foreign production once initiated exceeds domestic growth at later stages (Swedenborg, 1979). Although this trend applies rather more to MNCs in the engineering industry that have a longer history of international production, it is also applicable to the resource-based industrial firms whose international production had become increasingly important since the 1960s. Indeed, by the late 1980s, the leading pulp and paper firms—Stora, MoDo, SCA and ASSI—had 50 per cent of their total employment abroad (Sölvell et al., 1991). Apart from these firms, other firms in the mining and steel industries have also invested in major foreign operations abroad in the 1980s (Sölvell et al., 1991).

Not only has there been a more rapid pace in the internationalization process of Swedish firms in more recent decades with the tendency to leapfrog some of the stages of establishment and the approach of relatively more distant markets early on (Nördstrom, 1991) but also a change in the determinants of internationalization. The rapid internationalization of young technology-based firms in recent decades reflect efforts not only to increase sales but to establish closer contacts with markets where important technological developments in the industry take place (Lindqvist, 1991). In a limited number of Swedish industries, sophisticated foreign demand has substituted for having advanced customers in the home market in providing the crucial pressures and challenges for new product development; but this was selective and could not have worked without the support from a dynamic home base (Sölvell et al., 1991).

More importantly, the high international orientation of Swedish firms and MNCs have fostered learning and upgrading of their core skills and technologies assisted by the establishment of specialized product centres in different countries, the establishment of core R&D operations tied to major foreign plants, the relocation of the corporate headquarters or the divisional and business units to another country, and the use of new modes of international investment, including mergers and acquisitions as well as the formation of strategic alliances with foreign firms. By establishing specialized product centres or several home bases for each product or technology area, leading Swedish MNCs such as SKF, Atlas Copco, Electrolux, Ericsson and ABB and Fläkt have attained scale economies and gained from the concentration of research and/or production in the most advantageous location. The 20 largest Swedish MNCs perform some one-quarter of
all R&D abroad and, in addition, have been involved heavily in international research programmes to have an influence in the standards set by industry organizations, to enhance technological skills and to establish contacts with competitors and customers (Håkanson and Nobel, 1989; Håkanson, 1990). The establishment of foreign-based research and/or production in the electronics and pharmaceuticals industries in particular enabled Swedish firms to have listening posts in centres of innovation around the world, to tap into special research competencies in certain countries, to establish networks with foreign research institutions, and to recruit foreign specialists (Sölvell et al., 1991).

With the increasing importance of international production, the firm-specific advantages of Swedish firms and MNCs have drawn increasingly from their ability to develop new technologies in a narrow range of products that formed the basis of their specialization and world leadership owing to quality, service and market knowledge. Their growth strategies are evolving rapidly as seen both in the faster pace of the process of their internationalization and in the rationalization of the structure of their international production activities that facilitate cross-border product or process specialization and learning from producing in different environments. Since some foreign affiliates have become increasingly instrumental in the strategy formulation of the MNC of which they are a part, the organizational pattern of some Swedish MNCs have changed from a hierarchical system of decision making to a heterarchical system associated with globally integrated MNCs (Hedlund, 1984).

**Conclusion**

This chapter analysed the emergence and evolution of Swedish MNCs since the late nineteenth century. It showed the more rapid process of internationalization through exports and outward FDI of firms based in small countries compared to firms based in larger countries as an important means to expand markets and attain economies of scale. Although there has been a closer similarity in the industrial distribution of exports and outward FDI of Sweden since 1953, there was a much greater industrial disparity and hence greater scope for substitution between trade and outward FDI of Sweden during the period of the emergence of Swedish MNCs in the late 1800s. Indeed, firms in the dominant group of Swedish export industries based on raw materials (wood, pulp and metal ores) became MNCs only to a very limited extent during the period of emergence of Swedish MNCs, while those engaged in the domestic production and exports in the engineering industry consisting of metal manufactures, machinery and transport equipment, engendered the emergence of the first Swedish MNCs in a more significant way in the late 1800s. The increasing importance of international production by the more resource-based industrial firms became evident in a major way only since the 1960s. Forward integration by firms in staple industries to establish production closer to the final markets abroad as well as horizontal integration to exploit accumulated know-how in resource extraction and processing in foreign markets was motivated as much by the profitable exploitation of accumulated know-how and skills in extraction and processing of natural resources (Swedenborg, 1979) as by the need to gain market knowledge and to

The period since the 1960s also describes the metamorphosis in the process of internationalization by some Swedish manufacturing companies away from the traditional and gradual pattern of an ‘establishment chain’ described by Johanson and Wiedersheim-Paul (1975) towards a more rapid and direct process described by Nördstrom (1991) with the marked tendency of Swedish MNCs that initiated international production since that decade to leapfrog some of the stages of establishment by having sales as well as production subsidiaries abroad at a much earlier stage of the internationalization process, to invest in relatively more distant foreign countries that have market potential (such as the United States) at an early stage with the use in many cases of the modes of acquisitions and cooperative ventures rather than greenfield investments and the establishment of wholly-owned foreign subsidiaries. This is associated with the changed determinants of outward FDI as a means not only to expand markets and attain scale economies but to establish closer contracts with markets where important technological developments in the industry take place (Lindqvist, 1991). As a result, the firm-specific advantages of Swedish MNCs have derived increasingly from their ability to develop new technologies in a narrow range of products that formed the basis of their specialization and world leadership.

Notes

2 In terms of number, there were some 82 Swedish firms with foreign production facilities in 1965, and 118 such firms in 1978 employing some 300,000 people abroad. Some 64 of the 118 Swedish MNCs were small companies with foreign employment of less than 2,000. There is a high degree of concentration within Swedish MNCs. In 1978, the 20 largest Swedish MNCs operating abroad were responsible for more than 80 per cent of all Swedish enterprises’ employment abroad (Hörnell and Vahlne, 1986). By 1982, 47 Swedish MNCs with more than 500 employees abroad accounted for 92 per cent of all foreign employment. The 15 largest accounted for 81 per cent (Sölvell et al., 1991).
3 In a cross-sectional analysis of practically all Swedish firms in the manufacturing sector in 1974, Swedenborg (1979) found that Swedish industry had a higher export intensity but a lower international production intensity than American industry. The higher export intensity of Swedish industry is explained by the need to exploit economies of scale in production in the face of a relatively small domestic market. The relatively small distance to major export markets favoured the exploitation of such scale economies. The corollary is that the lower export intensity and higher international production intensity of American industry is explained by the larger size of the United States in both an economic and geographic sense.
4 This is a finding that seems to be an exception to the general principle of a greater
correlation in the sectoral distribution of the growth of exports and outward FDI for relatively newer investor countries such as Germany and Japan (see Cantwell, 1989a). By comparison, there is a much greater disparity in the sectoral distribution of growth of exports and outward FDI and, hence, greater scope for substitution between trade and outward FDI for the more mature and established international investors such as the United Kingdom and the United States.

5 Among the pioneering Swedish MNCs were Alfred Nobel’s corporation, Nitroglycerin AB, which had already initiated production in ten different countries in the 1870s, as well as Alfa-Laval (through its forerunner company, AB Separator) which established its first foreign plant (milk separators) in the United States in 1883. Nobel (explosives) established a plant in Germany in 1886. Wikander (cork and linoleum floors) established plants in Finland and Russia in the late 1800s. Perstop (Skånska Ättiksfabriken) built a plant for acetic acid production in Norway in 1898. ASEA installed a factory in the United Kingdom in 1898 to adapt electrical machinery to local needs, and had equity ties with licensees in Finland (1897), Norway (1898) and Denmark (1900). Ericsson set up major manufacturing plants in Russia around the turn of the century. SKF, the most internationalized Swedish firm in manufacturing, expanded production around the First World War. Plants were established in the United Kingdom (1911), Germany (1914), United States (1916) and France (1917). AGA established a plant for lighthouse production in England in 1914 (Sölvell et al., 1991; Hörnell and Vahlne, 1986).

6 For example, the investments of SKF in the United States continued to flourish, while German producers of ball bearings in that country did not (Olsson, 1993).

7 As mentioned, Russia appeared to be the most promising market for Swedish industry during the period of Swedish industrialization, especially for the young engineering industry. Swedish exports to Russia soared and many Swedish companies founded Russian subsidiaries encouraged by the great success of the Nobels, Wicander, Ericsson and SAT (Lundström, 1986).

8 Leading commercial banks became owners of industrial shares used as collateral for loans. Thus Enskilda Bank, owned by the Wallenberg family, gradually became the nucleus of the largest industrial group (Olsson, 1993).

9 Among the Swedish firms that initiated international production in the 1920s and 1930s were Esab which opened up plants for welding consumables (electrical welding machinery) across Europe in the 1920s, with the first manufacturing unit initiated in Germany where superior electrical welding know-how existed. Svenska Flätfabriken (now ABB Fläkt) opened its foreign plants in the 1930s in Finland, Norway and France, and expansion continued in the 1950s in Europe, United States and Mexico. Atlas Copco established plants in the United Kingdom (1939), South Africa (1947), Brazil (1960), India (1962) and Germany (1970) (Sölvell et al., 1991).

10 During this time, SKF with production subsidiaries in Germany and the United States could not escape the conflict (Olsson, 1993).

11 An excellent case in point is SAAB (later SAAB-Scania) that was given a privileged start as a producer of aircraft by the government (Olsson, 1993).
Almost all foreign paper plants of Swedish firms were specialized in either sack paper or paper board (Sölvell et al., 1991).

The value of international production by Swedish firms in the United States increased eightfold between 1979 and 1986 (the peak) compared to the value of Swedish exports to that country which increased only fourfold (Olsson, 1993).

It has not been possible to move the large scale basic processes out of Sweden since these had to remain close to the source of raw materials (Olsson, 1993).

Production in Sweden declined from 73 per cent to 53 per cent between 1965 and 1986 while production abroad increased from 27 per cent to 47 per cent over the same period. Sales in Sweden declined from 47 per cent in 1965 to 23 per cent in 1986, while sales abroad increased correspondingly from 53 per cent to 77 per cent (Olsson, 1993). The ten most internationalized Swedish MNCs reduced their domestic investments further by 14 per cent between 1985 and 1988 (Sölvell et al., 1991).

Gränges has operated mines abroad since the 1950s, notably the LAMCO mine in Liberia. Boliden acquired Greenes in Denmark in 1986 and Falconbridge in Canada in 1989, and operates mines in several countries (Sölvell et al., 1991).

Influences derived from international customers described the development of Inter-Innovation (the Swedish manufacturer of teller-operated cash dispensers) and Wallenius (the Swedish manufacturer of carrier ships for cars and trucks). Although Inter-Innovation developed within a strong domestic cluster of industries based on precision electro-mechanical know-how, domestic customers did not play a decisive role in the growth of the company. The growth impetus came from a large order from Citibank in 1979, followed by contracts from British and Spanish banks for teller-operated cash dispensers. Stringent product demands by foreign users in terms of quality and technological sophistication pressured the firm to upgrade its technology. By 1987, the firm derived only 5 per cent of its total sales in Sweden. Similarly, in the Swedish car shipping industry, contacts with foreign customers influenced the development of shipping design by Wallenius, helped by the presence of a strong domestic cluster of shipbuilding industries. Continuous technical development of carrier ships by Wallenius that led to the development of combined car-bulk carriers in 1974 and the pure car and truck carriers in 1977 was driven primarily by foreign customer needs (Sölvell et al., 1991).
The emergence and evolution of multinational corporations from Brazil

Introduction

By comparison to the long and rich history of MNCs based in other resource-abundant countries such as the United States and Sweden, the history of Brazilian MNCs whose origins can be traced to the late 1960s is much more recent and contemporary. Besides, the stock of Brazilian FDI which reached an estimated $9.8 billion in 1998 is far more modest and represented some 0.2 per cent of the global stock of outward FDI. Nevertheless, in relation to the stock of outward FDI from developing countries in that year, Brazil assumed greater relative importance with a share of 2.5 per cent (based on data in UNCTAD, 1999).

Despite the low relative importance of Brazilian FDI, the study of the emergence and evolution of Brazilian MNCs is of interest not the least because Brazil, like the United States and Sweden, is a resource-abundant country. Thus, although the history of Brazilian MNCs may be of more recent vintage and is in many respects still in the stage of emergence and their outward FDI remains low in both absolute and relative terms, the growth pattern of their MNCs as it has been evolving over the last 30 years or so can be compared to that of MNCs from the United States and Sweden whose home countries share similar patterns of national economic development. The analysis of the history of Brazilian MNCs in this chapter is divided in two distinct phases: the period of emergence from the late 1960s to 1975, and the period of development in the period since 1975.

The emergence of Brazilian MNCs in the late 1960s to 1975

The pioneering Brazilian MNCs spanned the three sectors of economic activity. In the primary sector, there was the oil exploration and drilling activities by the state-owned firm, Petrobrás, while in the secondary sector there was the initiation of international production by local firms in bicycles (Calói), electrical equipment (Gradiante Electronics) and motor vehicle parts (Eluma and Marcopolo). Thus, although Brazil had one of the largest and most developed manufacturing sectors among developing countries, its outward FDI did not feature prominently in the manufacturing sector in the emergent phase of Brazilian MNCs. Indeed, apart from Petrobrás, the main thrust of the earliest outward FDI by Brazilian firms had been in services. Of these, the most significant were those firms involved in heavy civil construction in Nigeria, the Middle
East and Latin America and the engineering consulting companies that set up foreign subsidiaries to build refineries, to design projects, etc.

**The emergence of Brazilian MNCs in the primary sector**

Concerns about chronic balance-of-payments deficits during the end of the era of vertical import substitution industrialization (ISI) (1955–70) prompted a political decision by the Brazilian government to search for new sources of foreign oil in light of Brazil’s position as a major importer of petroleum. Towards that end, Braspetro—a subsidiary of the state-owned oil monopolist Petrobrás—was created in 1972 to fulfil a strategic national interest of securing oil supplies abroad through risk contracts and close relations with OPEC countries. It became responsible for the foreign exploration, production, commerce, transportation and storage of oil and its products, as well as for the execution of technical and administrative services related to those activities (Guimaraes, 1986). Unlike American MNCs that emerged in a major way in outward FDI in the primary sector to exploit firm-specific assets in natural resource extraction and processing nurtured in the natural resource abundancy of the United States, the security of the supply of raw materials or natural resources as a motive for outward FDI in the emergent phase of Brazilian MNCs was rather unique to the Brazilian state-owned company Petrobrás, and specific to one natural resource—oil—given Brazil’s rich agricultural and mineral resources. The only other exceptional case of Brazilian resource-based FDI was the joint venture established with the Colombian government by the Brazilian state-owned steel enterprise, Siderbras, to exploit coal in Colombia with the objective of gaining independence from the United States for such raw material (White, 1981). In this respect, the Brazilian MNCs share more common features with Swedish MNCs where firms in the industries of mining, metal production and forestry became MNCs only to a very limited extent (see Chapter 4).

The geographical scope of the foreign activities of Braspetro covered at least 14 countries. Exploration contracts were undertaken frequently in association with other companies, and primarily with state-owned firms in Iran, Egypt, Colombia, Algeria, Iraq, Angola and Congo of which in some cases it had some equity participation, as well as with large multinational oil companies such as Texaco, Mobil Oil, Cities Services, BP, Elf Aquitaine and Total (Guimaraes, 1986; White, 1981). In its various foreign activities, Braspetro drew upon the accumulated experience of its parent company in oil and gas exploration, geophysics and drilling—an advantage that had been enhanced by a training centre for engineers and middle-range professionals in the company’s Centre for Research and Development in Rio de Janeiro. Those assets in addition to learning by doing on its own outside Brazil enabled Braspetro to build up even more advanced engineering and managerial skills related to petroleum exploration and to progress over time to become its own profit centre and not simply an instrument of national policy. Evidence for this was found in its increasing ability to enter into risk investments and to render technical services in the construction and installation of oil rigs, refineries, storage systems and pipelines, and to participate in the oil trading market. It is also reflected in its use of deep-sea oil production knowhow in the North Sea and Gulf of Mexico—former
The emergence of Brazilian manufacturing MNCs

As mentioned, outward FDI by Brazilian manufacturing companies in the emergent phase was rather limited. International production by the earliest Brazilian manufacturing MNCs in bicycles (Calói), electrical products (Gradiente Electronics) and motor vehicle parts (Eluma and Marcopolo) which consisted mainly of assembly operations was a means to overcome the high degree of protection in export markets. In the mould of the product cycle model of Vernon (1966), both Gradiente and Calói developed some export experience (although never more than 20 per cent of total sales according to Wells, 1988) with a network of dealers and service centres when the firms established assembly operations in Mexico and in the Andean Pact countries, respectively. The assembly operations in Bolivia and Colombia by Calói (the leading Brazilian firm in bicycles for leisure) and Eluma (the leading Brazilian firm in copper products and a major car parts manufacturer) circumvented the prohibition on imports stipulated in the Andean Pact regulation by local production with a high domestic value added (no less than 64 per cent of the value of a product).1 Although similar protectionist tendencies in Mexico prompted the assembly of audio/stereo equipment in that country by Gradiente Electronics (Brazil’s largest manufacturer of sound equipment), the assembly plant imported parts and components from the parent company’s factory at the Manaus Free Trade Zone in Brazil. An attempt to encourage greater local value added in Mexico met with limited success as the assembly plant closed down in 1986 (Peres Núñez, 1993).

The emergence of these pioneering Brazilian manufacturing MNCs can be viewed in the context of the diversified export promotion industrialization phase of Brazil in the period since the mid-1970s. The elaborate system of export promotion established in this phase served to enhance the growth and diversification of exports particularly of manufactures and technical services and to reduce dependency on primary products.2 More importantly, the system also favoured the decision of some domestic firms to become MNCs.3 While the elaborate export promotion system did not provide the basic incentive to export capital to establish foreign production capacity largely because of Brazil’s large foreign debt and the need to conserve foreign exchange, the financial and credit incentives offered under the system added to the broad range of incentives already enjoyed by many manufacturing companies (mainly assembly industries interested in foreign markets) with the establishment of the Free Trade Zone in Manaus in the mid–1960s. Export incentives in the Free Trade Zone, including the widespread use of drawbacks, exemptions from customs duties on imports of capital goods for industries under installation and capital financing at subsidized rates, stimulated Brazilian manufacturing companies to establish facilities in the Zone, and in the case of Gradiente and Calói to also establish plants in border countries such as Bolivia, Colombia and even Mexico. Typically, Brazilian manufacturing firms that later became MNCs had facilities already located in the Free Trade Zone (Villela, 1983).
Brazilian companies in the construction and consulting engineering industries established foreign subsidiaries to execute projects in heavy civil construction (building expressways, railways, irrigation dams, hydroelectric plants, hotels and university cities, etc.) in Africa, the Middle East and Latin America. Among the most prominent of these companies were Mendes Junior (which ranks among the world’s largest construction companies in terms of foreign sales), Camargo Correa, Construtora Rabello, Ecisa, Esusa and Sisal. Construction and consulting engineering firms operated frequently together in foreign markets, with the consulting engineering firms often spearheading construction companies in developing countries with imports of machinery and equipment from Brazil. This occurred in many countries of Latin America and Africa, mainly in the construction of highways and dams. There were some 26 Brazilian consulting engineering firms that had overseas activities between 1975 and 1979 with an average annual sales per company of $18.5 million (Villela, 1983).

The international forays of almost all Brazilian construction and consulting engineering companies have been initiated in the form of exports of services to Latin America—a move that was partly in response to the country’s export promotion policy and partly by the need to overcome the firms’ vulnerabilities to the vagaries of the domestic market. At the same time, the tax breaks and subsidized credits associated with the elaborate exports promotion system geared to promote exports of capital goods prompted consulting engineering and construction companies to establish foreign subsidiaries to compete for contracts in overseas projects involving telecommunications networks, ports, hydroelectric power stations, dams, highways, etc. Exports and international production became a dual means to expand markets as many of these companies had achieved a size that required a minimum level of demand to use their installed capacity effectively.4

The expansion abroad of Brazilian construction and consulting engineering companies can be attributed to their ability to adapt technologies to the special needs of developing countries. Most of the Brazilian engineering companies active abroad acquired their expertise from previous associations with foreign companies that had come to Brazil to carry out specific jobs such as the design and assembly of hydroelectric plants, nuclear plants, petrochemicals, steel mills, telecommunications systems and so on (Villela, 1983).5 However, the requisite technologies to execute more sophisticated projects involving petrochemical complexes, offshore drilling rigs and ferroalloy plants were acquired through former licensing arrangements (Sercovich, 1984).6

Apart from their technological skills, Brazilian construction and consulting engineering companies have the ability to raise capital (particularly important in winning contracts in non-oil producing developing countries where bids for the execution of jobs were sometimes linked to the concession of credits at competitive interest rates), and have sophisticated management structures to mobilize a large number of workers, to procure from many suppliers across the world, and to complete projects rapidly and efficiently (Villela, 1983).
The major expansion of Brazilian MNCs since 1975

While Brazilian MNCs emerged in all three major sectors of economic activity, the main thrust of outward FDI undertaken by Brazilian MNCs during the period of their emergence from the late 1960s until 1975 was accounted for by Petrobrás and the construction and consulting engineering companies, as mentioned. The limited amounts of outward FDI in the manufacturing sector were undertaken by the pioneering Brazilian manufacturing MNCs such as Calóí (bicycles), Gradiente Electronics (electrical equipment) and Eluma (copper products and motor vehicle parts). By contrast, the second phase of Brazilian MNC growth which pertain to the period since 1975 can be distinguished clearly as the phase of the major emergence of Brazilian MNCs in the manufacturing and banking sectors and, to a lesser extent, the emergence of overseas mineral prospecting activities by Brazilian state and privately owned resource-based companies. The period also described the continued international expansion of Brazilian MNCs in construction and consulting engineering and the emergence of Globo, a Brazilian MNC in TV broadcasting. Some examples of Brazilian MNCs that have come into existence are provided in Table 5.1.

The emergence of Brazilian MNCs in banking

A major trend towards the internationalization of both public and private Brazilian commercial banks had been observed particularly since 1974, and the pace was so rapid that by June 1981 14 public and private Brazilian commercial banks had operations abroad consisting of 190 branches in 48 countries.

Table 5.1 Some examples of Brazilian multinational corporations

<table>
<thead>
<tr>
<th>Companies (by main industry)</th>
<th>Foreign activity</th>
<th>Country</th>
<th>Year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Primary Oil</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Petrobrás (through Braspetro and Interbras)</td>
<td>Oil exploration</td>
<td>Iraq</td>
<td>1972</td>
<td>First contract abroad. It discovered the giant oil fields of Majnoor and Nahr Umr</td>
</tr>
<tr>
<td></td>
<td>Oil exploration</td>
<td>Algeria</td>
<td>1974</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oil exploration</td>
<td>South Yemen</td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oil exploration</td>
<td>China</td>
<td>1983</td>
<td></td>
</tr>
</tbody>
</table>
Oil services, Norway 1984 Joint venture
Oil services, Angola 1985 18 million contract
Oil exploration, United States 1987 Joint venture with Texaco to work in the Gulf of Mexico

**Minerals**
- Siderbras, Coal exploration, Colombia 1970s Joint venture
- Companhia de Pesquisa de Recursos Minerais (CPRM), Mineral prospection, Africa 1979 Contract. No subsidiaries
- Recursos Minerais, Gold prospect, Angola 1984 Contract. No subsidiaries
- Paranapanema, Gold prospect, Guyana 1984 Joint venture

**B. Manufacturing**

**Food products**
- Copersucar (a cooperative formed by about 70 of the largest sugar and coffee producers), Soluble coffee, United States 1976 Acquired Hills’ Brothers Coffee, the fourth-largest coffee processing plant in the USA, for $150 million. The purpose was to vertically integrate into coffee processing and marketing of coffee as well as cocoa and sugar using the Hills’ Brothers brand name. Sold to Nestlé in 1986 after failing to make adequate returns

- Cotia, Cattle ranches and meat packing, cold storage facilities, Nigeria late 1970s Joint venture. Prompted by highly protected host country-market
- Soft drinks factory, Nigeria late 1970s Joint venture. Prompted by highly protected host country market. Plant for bottling guaraná (a traditional Brazilian soft drink), of which the
syrup is imported from Brazil

<table>
<thead>
<tr>
<th>Company</th>
<th>Activity</th>
<th>Country</th>
<th>Year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cica (Canned</td>
<td>foods</td>
<td>Argentina</td>
<td>1979</td>
<td>The leading exporter of Brazilian instant coffee invested $0.5 million in a joint venture to move away from exporting unpackaged instant coffee, and to sell most of the bottled coffee to Japan, Australia and other Asian markets</td>
</tr>
<tr>
<td>Cacique (Instant</td>
<td>coffee bottling</td>
<td>China</td>
<td>1985</td>
<td>Joint venture</td>
</tr>
<tr>
<td>Brahma (Malt</td>
<td>production</td>
<td>Argentina</td>
<td>1987</td>
<td>Joint investments with other Brazilian groups</td>
</tr>
<tr>
<td>Cerval Alimentos</td>
<td>Soya oil and meal</td>
<td>Portugal</td>
<td>1993</td>
<td>Investment: $40 million</td>
</tr>
<tr>
<td></td>
<td>plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Textiles,</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Grendene</td>
<td>Plastic shoes</td>
<td>Argentina</td>
<td>1986</td>
<td>Joint ventures with Argentine partner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Colombia,</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Mexico</td>
<td></td>
<td></td>
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<tr>
<td>Hering</td>
<td>Cotton knitwear</td>
<td>Argentina</td>
<td>1986</td>
<td>To serve a market segment demanding rapid deliveries. 780 workers in 1991</td>
</tr>
<tr>
<td></td>
<td>licensing</td>
<td>Spain</td>
<td>1991</td>
<td></td>
</tr>
<tr>
<td>Vacchi</td>
<td>Tannery</td>
<td>United Kingdom</td>
<td>1986</td>
<td>Acquired British tannery</td>
</tr>
<tr>
<td>SP Alpargatas</td>
<td>Jeans factory</td>
<td>Spain</td>
<td>1989</td>
<td>Penetration of market segments with bigger profit margins. Flexibility in meeting clients’ needs. Investment: less than $14 million</td>
</tr>
</tbody>
</table>

**Companies (by main industry)**

<table>
<thead>
<tr>
<th>Companies</th>
<th>Foreign</th>
<th>Country</th>
<th>Year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multinational corporations</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Textiles, clothing and footwear (continued)**

<table>
<thead>
<tr>
<th>Company</th>
<th>Product</th>
<th>Country</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staroup</td>
<td>Jeans factory</td>
<td>Portugal</td>
<td>1989</td>
<td>Add value to product. With Portuguese partner</td>
</tr>
<tr>
<td><strong>Packaging</strong></td>
<td></td>
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</tr>
<tr>
<td>ITAP</td>
<td>Food packaging factory</td>
<td>United States</td>
<td>1983</td>
<td>Production and finishing of products exported from Brazil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Buffalo, New York)</td>
<td></td>
<td>Project for a plant in Portugal</td>
</tr>
<tr>
<td>Toga</td>
<td>Paper and cardboard</td>
<td>United States</td>
<td>1988</td>
<td>Bryce Corporation provided 40% of capital</td>
</tr>
<tr>
<td></td>
<td>packaging factory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wood and furniture</strong></td>
<td></td>
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</tr>
<tr>
<td>Securit</td>
<td>Assembly and showroom</td>
<td>United States</td>
<td>1979</td>
<td>Investment of $0.5 million in a joint venture to bypass furniture dealers and sell directly to customers, taking advantage of Brazilian wood and labour as well as the oil boom and large property investments in Texas. Local competitive pressures forced the firm to close down the operation</td>
</tr>
<tr>
<td>Bergamo</td>
<td>Furniture assembly</td>
<td>Colombia</td>
<td>before 1980</td>
<td>Invested abroad to offset the contraction of the domestic market which led to firm losses in 1977 and 1979</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Investment in response to Andean Pact legislation. Export of components from Brazil</td>
</tr>
<tr>
<td>Labra</td>
<td>Pencil factory</td>
<td>Portugal</td>
<td>1985</td>
<td>Acquired pencil factory for $130 million to increase exports to the European Economic Community</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>(Hanover)</td>
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</tbody>
</table>

**Bicycles**

<table>
<thead>
<tr>
<th>Company</th>
<th>Product</th>
<th>Country</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calói</td>
<td>Bicycle</td>
<td>Bolivia</td>
<td>1974</td>
<td>Joint venture to overcome</td>
</tr>
<tr>
<td>Product</td>
<td>Location</td>
<td>Year</td>
<td>Details</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
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<td></td>
</tr>
<tr>
<td>Production</td>
<td>Local</td>
<td>1978</td>
<td>Joint venture to overcome protected market. Local production with a high domestic value added in response to Andean Pact regulation</td>
<td></td>
</tr>
<tr>
<td>Bicycle production</td>
<td>Colombia</td>
<td>1978</td>
<td>Royalties agreement</td>
<td></td>
</tr>
<tr>
<td>Licensing for bicycles</td>
<td>Guyana</td>
<td>1980</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lifts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Villares Lifts subsidiary</td>
<td>Chile</td>
<td>1977</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Villares Lifts subsidiary</td>
<td>Colombia</td>
<td>1978</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Villares Lifts subsidiary</td>
<td>Uruguay</td>
<td>1980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifts subsidiary</td>
<td>Mexico</td>
<td>1980</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electrical products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gradiente Assembly of audio/stereo equipment</td>
<td>Mexico</td>
<td>1973</td>
<td>Investment prompted by highly protected market. Imports parts from the parent company’s factory at the Manaus Free Trade Zone. Closed down in 1986</td>
<td></td>
</tr>
<tr>
<td>Laboratory United Kingdom and trademark</td>
<td>United Kingdom</td>
<td>1979</td>
<td>Acquired the Plessey subsidiary. Garrard, for $2.5 million, The factory in Swindon, UK. was closed down in 1982, and production transferred to Gradiente’s factory at the Manaus Free Trade Zone. The main objective was to become the owner of a world-known trademark and a distribution network in various countries for sound equipment made in Brazil</td>
<td></td>
</tr>
<tr>
<td>Inepar Electrical control equipment</td>
<td>Chile</td>
<td>1977</td>
<td>Investment of $0.4 million in a joint venture</td>
<td></td>
</tr>
<tr>
<td>Companies (by main industry)</td>
<td>Foreign activity</td>
<td>Country</td>
<td>Year</td>
<td>Notes</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>---------------</td>
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</tr>
<tr>
<td>Electrical products (continued)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inbrac</td>
<td>Cables</td>
<td>Paraguay</td>
<td>1978</td>
<td>Joint venture</td>
</tr>
<tr>
<td></td>
<td>Cables</td>
<td>Ecuador</td>
<td>1985</td>
<td>Joint venture. Total investment in this venture and that in Paraguay: $1.364 million</td>
</tr>
<tr>
<td>Nansen</td>
<td>Electricity meters</td>
<td>Colombia</td>
<td>1985</td>
<td>Investment of $0.3 million in a joint venture plant to serve as a springboard for Third World country sales</td>
</tr>
<tr>
<td>Brastemp</td>
<td>Refrigerator production</td>
<td>Argentina</td>
<td>1990</td>
<td>Acquired 40% of former Philips affiliate. Joint investment with Whirlpool. Investment: 110 million</td>
</tr>
<tr>
<td>Steel products and capital goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerdau</td>
<td>Steelworks</td>
<td>Uruguay</td>
<td>1981</td>
<td>Produces 39,000 tons per year. To sell in protected market</td>
</tr>
<tr>
<td></td>
<td>Steelworks</td>
<td>Canada (Ontario)</td>
<td>1989</td>
<td>Produces 250,000 tons per year</td>
</tr>
<tr>
<td>Companhia Vale do Rio Doce (CVRD)</td>
<td>Steel production</td>
<td>United States (Fontana, California)</td>
<td>1984</td>
<td>The world’s top iron ore producer acquired 25% of the Fontana steel mill from Kaiser Corporation for 120 million. Together with Michael Wilkinson who acquired 50% and Kawasaki Steel Corp. of Japan which acquired the remaining 25%, the California Steel Company was formed. The purpose of CVRD in this investment was to cash in on the value added to iron ore at the processing stage</td>
</tr>
</tbody>
</table>
Bardella Various capital goods United States 1985 Acquired 50% of Schuler Inc.—an American offshoot of Germany’s Schuler GmbH for $4 million in order to have a significant local presence in the USA to win contracts to supply capital goods and to provide a service network. Since the acquisition, Schuler Inc. has become the principal supplier of stamping presses to Chrysler Corporation.

**Motor vehicle parts**

<table>
<thead>
<tr>
<th>Company</th>
<th>Product</th>
<th>Country</th>
<th>Year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eluma</td>
<td>Auto parts</td>
<td>Argentina, South Africa 1968</td>
<td>Established foreign joint ventures with Bundy an American firm that has been its long-term partner in Brazil since the birth of the motor vehicle industry in the 1950s.</td>
<td></td>
</tr>
<tr>
<td>Marcopolo</td>
<td>Assembly of bus bodies</td>
<td>Venezuela 1971</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotia</td>
<td>Auto parts</td>
<td>Nigeria 1979</td>
<td>Joint venture. Prompted by highly protected host country market.</td>
<td></td>
</tr>
<tr>
<td>Metal Leve</td>
<td>Piston factory</td>
<td>United States (South Carolina) 1989</td>
<td>Clients demand technological solutions and ‘just-in-time’ inventory management system rather than merely supplying parts or components. Investment: $10 million. Sales: $15 million. Plans to establish a piston factory in Europe and a gasket factory in the USA.</td>
<td></td>
</tr>
<tr>
<td>R&amp;D centre</td>
<td></td>
<td>United States (Ann Arbor, Michigan) 1988</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Companies (by Foreign Country Year Notes)*
<table>
<thead>
<tr>
<th>main industry)</th>
<th>activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motor vehicle parts (continued)</strong></td>
<td></td>
</tr>
<tr>
<td>SIFCO</td>
<td>Shaft machining States plant</td>
</tr>
<tr>
<td>COFAP</td>
<td>Engine part factory</td>
</tr>
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<td></td>
<td>Engine parts</td>
</tr>
<tr>
<td>Aircraft Embraer</td>
<td>Aircraft assembly</td>
</tr>
<tr>
<td></td>
<td>Aircraft assembly</td>
</tr>
<tr>
<td><strong>Other manufacturing</strong></td>
<td></td>
</tr>
<tr>
<td>Cotia</td>
<td>Nail making factory</td>
</tr>
<tr>
<td><strong>Banking</strong></td>
<td></td>
</tr>
<tr>
<td>14 public and private Brazilian banks</td>
<td>190 bank branches</td>
</tr>
</tbody>
</table>
commercial banks and associated with the growth of Brazil’s industrial exports, and to gain access to international capital markets.

Construction services

Mendes Junior Construction Mauritania 1974 Construction of a 1120 million highway (606 km)

Construction Uruguay 1980s Completed a $157.8 million hydroelectric plant

Construction Iraq 1970s Sole contractor for the construction of a $1.2 billion, 1,040 kilometre railway, between Baghdad and Akashat; and the construction of a 128.5 kilometre expressway at the cost of $380 million. As of 1981, the company made investments worth $340 million in machinery and equipment.

Constututora Rabello Construction Algeria early 1970s A medium-sized company that designed, built and expanded the university cities of Constantin and Algiers. It also won a $200 million contract for the construction of an irrigation dam.

Camargo Correa Construction Venezuela 1980s Involved with two other international firms in the construction of the Gury hydroelectric plant

Odebrecht Construction Peru, Ecuador 1970s

Construction Portugal 1988 Acquired a construction firm to enhance its grip of the local market and
to break into EEC work

<table>
<thead>
<tr>
<th>Company</th>
<th>Construction</th>
<th>Country</th>
<th>Year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecisa</td>
<td>Tanzania</td>
<td>1970s</td>
<td>A medium-sized company that built a $250 million highway, and a $150 million highway</td>
<td></td>
</tr>
<tr>
<td>Esusa</td>
<td>Iraq</td>
<td>1980s</td>
<td>Built hotel networks worth $150 million</td>
<td></td>
</tr>
<tr>
<td>Sisal</td>
<td>Angola</td>
<td>1980s</td>
<td>Built hotel networks worth $100 million</td>
<td></td>
</tr>
<tr>
<td>Veplan</td>
<td>Chile</td>
<td>1980s</td>
<td>Invested $25 million in a joint venture to build a shopping centre Parque Arauco in Santiago</td>
<td></td>
</tr>
</tbody>
</table>

### Companies (by main industry)

<table>
<thead>
<tr>
<th>Foreign Activity</th>
<th>Country</th>
<th>Year</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenenge</td>
<td>Subsidiary</td>
<td>Paraguay</td>
<td>1975</td>
</tr>
<tr>
<td>Some 26 companies</td>
<td>93 projects</td>
<td>22 countries in 79 Latin America, Africa and the Middle East</td>
<td></td>
</tr>
<tr>
<td>Retail trade</td>
<td>Supermarket</td>
<td>Portugal</td>
<td>1970</td>
</tr>
<tr>
<td>Pão de Açúcar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Globo</td>
<td>TV broadcasting</td>
<td>Italy</td>
<td>1985</td>
</tr>
<tr>
<td>Broadcasting</td>
<td>Supermarket</td>
<td>Angola</td>
<td>1973</td>
</tr>
<tr>
<td>Supermarket Spain</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
countries (Villela, 1983). Two public banks stand out: Banco do Brasil with 78 foreign branches, and the Banco de Estado de São Paulo, while the Banco Real with 55 foreign branches was by far the largest and most forceful Brazilian private bank abroad. The establishment of an overseas network by Brazilian state-owned and privately owned banks in the developed countries enabled the banks to attract resources from international capital markets, and their expansion in Latin America was allied closely with the rapid growth of Brazilian exports to the region (Guimaraes, 1986).

The major expansion of Brazilian manufacturing MNCs

Some 121 locally owned manufacturing firms engaged in outward FDI between 1977 and 1982 (calculated from data in Guimaraes, 1986). The investments were, however, highly concentrated: some 58 firms accounted for 98 per cent of Brazilian outward FDI in the manufacturing sector based on authorization certificates issued by the Central Bank in that period, and many of those firms were leaders in their respective industries. Thus, the process of multinationalization of Brazilian manufacturing firms can be analysed in the context of oligopolistic market structures in which the benefits of economies of scale could be further exploited through international production. A sign of the emergent stage of their multinationalization is seen in the fact that over 80 per cent of those 58 locally owned firms invested in only one foreign country between 1977 and 1982 (Guimaraes, 1986), and sales by foreign subsidiaries and licensed production abroad made up less than a tenth of total sales of the companies in the late 1980s (Wells, 1988). Exports thus continues to be the main modality of serving foreign markets by Brazilian manufacturing companies.

The quarter-century since 1975 described the emergence of an increasing number of Brazilian manufacturing MNCs that span a broad range of industries to include food products, textiles, clothing and footwear, paper packaging, wood and furniture, bicycles, lifts, electrical products, steel products and capital goods, motor vehicle parts, and aircrafts (see Table 5.1). To overcome the high degree of protection in export markets continued to be an important determinant behind the emergence of Brazilian manufacturing MNCs—at least until 1980. In the period since 1980, however, international production became a tool of firms as active agents to fulfil several objectives: to penetrate the markets or market segments of developed countries as in the
cases of Cacique (instant coffee), Copersucar (coffee), Gradiente Electronics (stereo equipment), Hering and Alpargatas (clothing), Securit and Duratex (furniture) and Labra (pencils); to have a significant local presence in order to obtain contracts in host country markets as in the cases of Bardella (capital goods), Metal Leve (pistons), SIFCO (shaft machining), COFAP (engine parts), and Embraer (aircrafts); to broaden the geographical scope of their exports as in the case of Nansen (electricity meters); to add value to their product as in the cases of ITAP and Toga (packaging), as well as Cacique (instant coffee); and to integrate in more profitable higher value added activities in foreign markets as in the case of CVRD (steel). The rate of expansion overseas accelerated rapidly in the 1980s, along with the accumulation of large trade surpluses associated with the export drive spurred by government policy after 1984 and the domestic market slowdown after 1982 (Villela, 1983).

The emergence and growth of Brazilian MNCs in both resource-based industries and more capital intensive industries is a reflection of Brazil’s large and developed manufacturing sector among developing countries that builds upon its rich agricultural, forestry and mineral resources as well as efforts to expand industrial capacity in capital goods industries. Although there was no specific sequential pattern in the emergence of the different industries that engendered Brazilian manufacturing MNCs, the firms from the more capital intensive industries such as bicycles, electrical equipment and motor vehicle parts, were the pioneering Brazilian manufacturing MNCs in the period before 1975 as mentioned, while firms in the resource-based industries of food, wood products and furniture, paper packaging and textiles, leather and clothing emerged later (see Table 5.2). The next sections explain further the emergence of Brazilian MNCs in the resource-based and capital intensive manufacturing industries.

The expansion of Brazilian manufacturing MNCs in resource-based industries

Brazilian manufacturing MNCs came to emerge in such natural resource-based industries as food products, furniture and wood products, paper packaging, and textiles, leather and clothing. Firms in the food products industry showed a consistent pattern of emergence as MNCs since the pioneering steps in international production by Copersucar (the industry leader in sugar and coffee) in 1976 as well as Cica (the leading firm in canned food products) and Cotia (cattle ranches, meat packing, soft drinks) in the late 1970s.\(^8\) This was followed by Cacique (the leading firm in instant coffee) in 1985, Brahma (one of two industry leaders in beer brewing) in 1987 and other firms, including Cerval Alimentos in 1993. Firms in the wood products and furniture industry also displayed a consistent pattern of growth starting with Securit (the leading Brazilian firm in office furniture) and Bergamo that became MNCs before 1980. Other firms in the industry followed suit, including Labra (one of two leading firms in pencils production) in 1985 and Duratex (Itau Group) in 1990.

On the other hand, firms in the packaging and textiles, leather and clothing industries emerged later than those in the food products and wood products industries. Multinational corporations in the packaging industry such as ITAP and Toga emerged in 1983 and 1988, respectively and firms in the textiles, leather and clothing industries that
have always been significant exporters were perhaps the latest group of Brazilian firms to internationalize their production activities. Firms in these sectors became MNCs only after the

*Table 5.2* The emergence of Brazilian multinational corporations by period and industry

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>A. Primary</strong></td>
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<tr>
<td><em>Oil exploration</em></td>
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<tr>
<td>Petrobrás (through Braspetro and Interbras)</td>
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<tr>
<td>Coal exploration</td>
<td></td>
<td>Siderbras</td>
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<tr>
<td>Minerals exploration</td>
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<td>Parapanema</td>
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<tr>
<td><strong>B. Manufacturing</strong></td>
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<tr>
<td><em>Food products</em></td>
<td><em>Food products</em></td>
<td><em>Food products</em></td>
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<tr>
<td>Copersucar</td>
<td>Cacique</td>
<td>Brahma</td>
<td></td>
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<tr>
<td>Cica</td>
<td>Cerva</td>
<td>Cervcal</td>
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<tr>
<td>Cotia</td>
<td></td>
<td>Alimentos</td>
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<tr>
<td><em>Textiles, clothing and footwear</em></td>
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<tr>
<td>Grendene</td>
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<tr>
<td>Hering</td>
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<tr>
<td>Vacchi</td>
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<tr>
<td>SP Alpargatas</td>
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<td></td>
<td></td>
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<tr>
<td>Staroup</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><em>Packaging</em></td>
<td><em>Packaging</em></td>
<td><em>Packaging</em></td>
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<tr>
<td>ITAP</td>
<td>Toga</td>
<td></td>
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</tr>
<tr>
<td>Wood and furniture</td>
<td>Wood and furniture</td>
<td>Wood and furniture</td>
<td></td>
</tr>
<tr>
<td>Securit</td>
<td>Labra</td>
<td>Duratex</td>
<td></td>
</tr>
<tr>
<td>Bergamo</td>
<td></td>
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</tr>
<tr>
<td><em>Bicycles</em></td>
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<tr>
<td>Caloi</td>
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<tr>
<td><em>Lifts</em></td>
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<tr>
<td>Villares</td>
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<tr>
<td>Electrical products</td>
<td>Electrical products</td>
<td>Electrical products</td>
<td>Electrical products</td>
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<td>---------------------</td>
</tr>
<tr>
<td>Gradiente Electronics</td>
<td>Inpar Electronics</td>
<td>Nansen Electronics</td>
<td>Brastemp Electronics</td>
</tr>
</tbody>
</table>

*Steel products and capital goods*
- Gerdau
- Companhia Vale do Rio Doce (CVRD)

<table>
<thead>
<tr>
<th>Motor vehicle parts</th>
<th>Motor vehicle parts</th>
<th>Motor vehicle parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eluma Marcopolo</td>
<td>Cotia SIFCO COFAP</td>
<td>Metal Leve</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>Aircraft</td>
<td>C. Services</td>
<td>Banking</td>
</tr>
<tr>
<td></td>
<td>Embraer</td>
<td>Cotia</td>
<td>Bardet</td>
</tr>
<tr>
<td>C. Services</td>
<td>Banking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other manufacturing</td>
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<td></td>
<td>14 public and private</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Brazilian commercial banks</td>
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</tr>
<tr>
<td></td>
<td>including Banco do Brasil,</td>
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<tr>
<td></td>
<td>Banco de Estado de São Paulo and Banco Real</td>
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<table>
<thead>
<tr>
<th>Construction services</th>
<th>Construction services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mendes</td>
<td>Camargo</td>
</tr>
<tr>
<td>Junior</td>
<td>Correa</td>
</tr>
<tr>
<td>Constutora</td>
<td>Esusa</td>
</tr>
<tr>
<td>Rabello</td>
<td>Sisal</td>
</tr>
<tr>
<td>Odebrecht</td>
<td>Veplan</td>
</tr>
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<td>Ecisa</td>
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<table>
<thead>
<tr>
<th>Engineering services</th>
<th>Engineering services</th>
</tr>
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<tbody>
<tr>
<td>Tenenge</td>
<td>some 26 companies</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Retail</th>
<th>Broadcast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pão de Acucar</td>
<td>Globo</td>
</tr>
</tbody>
</table>

Source: Derived from Table 5.1.
mid-1980s starting with Grendene (the leading firm in plastic footwear), Hering (the leading firm in cotton knitwear and T-shirts) and Vacchi (a company with a long experience in the exports of leather products to Europe) in 1986, followed by SP Alpargatas and Staroup (both manufacturers of jeans) in 1989 (see Table 5.2). Through international production, Brazilian firms in the clothing and leather industries have been able to exploit profitable higher value added activities and market niches in the developed countries (Peres Núñez, 1993).

The competitive advantages of Brazilian MNCs in these resource-based industries had been nurtured in the richness of Brazil’s natural resources. Indeed, primary products formed the basis of Brazilian industrial development between 1800 and 1930 (Gereffi and Evans, 1981). The sustained strengths of Brazil in primary product sectors is a legacy of its primary product export economy industrialization phase in which exports of agricultural produce (particularly coffee)—that provided over 90 per cent of Brazil’s foreign exchange before 1945—was the principal driver of economic growth (Newfarmer, 1980). Indeed, of all primary commodities that Brazil produced and exported to include sugar, cocoa, wood, iron ore and others, coffee became its principal export product and Brazil reigned supreme in the production and export of coffee worldwide.

Unlike in other developing countries where foreign capital controlled primary sector production, coffee production in Brazil was dominated by Brazilians (Gereffi and Evans, 1981). The comparative advantage of Brazil in coffee production thus led to the development of competitive advantages of local producers and major exporters in the coffee industry, some of which like Copersucar (a consortium of the leading firms in sugar and coffee production) and Cacique (the leader in instant coffee) became MNCs. 9 The key strength brought to bear by these coffee companies in their vertically integrated outward FDI activities is the assurance of a steady and abundant supply of coffee and other primary commodities for which the firms in particular, and Brazil in general, is responsible for a considerable proportion of world output.10 Similarly, Companhia Vale do Rio Doce—the Brazilian leading company in iron ore mining and regarded as the world’s top iron ore producer—secured a foothold in the United States by partly acquiring a steel mill in Fontana, California, in order to profit from the value added to iron ore at the processing stage. The company’s steady supply of low-cost iron ore from Brazil brought to the United States through its own shipping fleets have been instrumental in bringing down the costs of steel produced by the Fontana mill (Wells, 1988).

Forward vertical integration in foreign markets, particularly in developed countries, thus became a strong driving force behind the outward FDI of these companies to assure themselves of steady buyers. Their strong advantages based on the control of abundant agricultural or forestry based raw materials or mineral resources enabled their integration into the more advanced stage in the value added chain as an important means to earn higher profits and expand markets (Diaz-Alejandro, 1977).

Similar strengths obtained on the basis of abundant raw materials in Brazil are evident among the Brazilian manufacturers in such industries as furniture, pencils, paper and cardboard packaging and textiles, clothing and leather whose origins can be traced to the
export economy phase that fostered industrialization in a broad range of industries that had low capital and technological barriers to entry. Indeed, among the industries that thrived during the primary product export phase were textiles and foodstuffs (which supplied nearly three-quarters of factory production), paper, glass, cigarettes, soap, matches as well as several foundries that manufactured hardware, agricultural machinery and railway wagons (Newfarmer, 1980). Many of these industries spawned Brazilian MNCs. For example, Securit—the largest office furniture maker in Brazil—opened a showroom and assembly plant in Houston, Texas, in 1980 with the objective of selling directly to the customer while taking advantage of cheap Brazilian wood and labour and capitalizing on the oil boom in Texas and the large Arab real estate investments in the state (Wells, 1988). Similarly, the pencils produced at the Portuguese factory of Labra (one of two leading Brazilian companies in pencil production) were sold to European markets at a competitive price on the basis of the company’s access to low-cost wood from Brazilian forests, its large-scale production, licensed technology from Europe and cheap labour in both Portugal and in Brazil (Wells, 1988).

The growth of Brazilian firms and MNCs in the textiles industry can be traced to the origins of the domestic textiles industry as one of the oldest and most successful locally controlled Brazilian industry spawned during the primary product export industrialization phase. At the turn of the twentieth century Brazilian textile companies already enjoyed some degree of success despite competition from European and North American imports, and by 1920 Brazilian factories had expanded to a scale comparable to their foreign competitors and met virtually all the local demand for textiles (Stein, 1957). The rapid growth of Brazilian textile companies in this period was attributed partly to their access to relatively inexpensive British textile technology that had become available increasingly with the decline of the comparative advantage of Great Britain in textiles production vis-à-vis the United States and other Europe (Hobsbawn, 1968).

The abundant natural resources of Brazil not only helps to explain the emergence of Brazilian manufacturing MNCs in the resource-based industries but also the involvement of Brazilian resource-based companies in foreign mineral prospecting activities. While these activities did not always involve the establishment of subsidiaries (as in the case of the state-owned Companhia de Pesquisa de Recursos Minerais (CPRM) whose mineral prospecting activities in Africa was undertaken through contracts), the accumulated experience of these companies nurtured in the vastness and natural resource abundance of Brazil was applicable directly to their overseas mineral prospecting activities. Gold mining is a particular forte especially for CPRM and the privately owned company, Parapanema. Some of the firms were so advanced in their field as shown, for example, in the case of Metalur that supplied Brazilian equipment to its Norwegian plant producing high-grade magnesium (Wells, 1988).

The expansion of Brazilian manufacturing MNCs in capital intensive industries

Apart from the resource-based industries, Brazilian manufacturing MNCs came to emerge in more capital intensive industries such as bicycles, lifts, electrical products, steel and capital goods, motor vehicle parts and aircrafts. The electrical products industry
was one of the first industries to engender Brazilian MNCs starting with the international production by the industry leader in stereo equipment, Gradiente Electronics in 1973 as mentioned, and has since proven to be one of the more important industries of Brazilian FDI. The outward FDI by Gradiente was followed by the other firms in the industry, including smaller- and medium-sized firms such as Inepar (producer of electrical control equipment) and Inbraec (producer of cables and wires) that initiated international production in 1977 and 1978, respectively, and Nansen (producer of electricity meters) and Brastemp (producer of electrical appliances) that initiated international production in 1985 and 1990, respectively.

Villares (the leading firm in the production of mechanical lifts) initiated the establishment of foreign subsidiaries in 1977, while firms in the steel products and capital goods industries initiated international production in the first half of the 1980s starting with Gerdau in 1981, Companhia Vale do Rio Doce (the leader in iron ore mining) in 1984, and Bardella in 1985. The Brazilian state firm, Embraer (the leading firm in aircrafts) initiated aircrafts assembly abroad in 1983. Firms in the motor vehicles parts industry, on the other hand, displayed a rather more sporadic pattern of growth. Thus, the pioneering forays into international production by Eluma in 1968 and Marcopolo in 1971 was followed by Cotia in 1979, and then much later by Metal Leve and SIFCO in 1989 and COFAP in 1991 (see Table 5.2).

The emergence of strengths by Brazilian firms in these industries not directly related to the presence of abundant natural resources can be explained in the context of the switch in industrialization development policy at the time of the Great Depression. The growth in public debt which became an overwhelming burden in the era of declining coffee prices around the Great Depression led to the realization that a total reliance on export-oriented growth based on primary products was unsustainable. The decline in export earnings accompanied by the sharp devaluations of the local currency precipitated a shift in industrial development policy away from growth based on exports towards one based on import substitution industrialization. The objective of the new industrial development policy in effect between 1930 and 1955 starting with the horizontal ISI phase was to foster the local production of consumer non-durables (light consumer goods) and the local assembly of consumer durables. This new industrialization strategy was implemented largely through state entrepreneurship in basic industries like steel to ensure domestic manufacturers a steady supply of locally available inputs while at the same time serving to limit foreign control in these strategic industries; the provision of artificial support to coffee prices to ensure the presence of an adequate local demand for manufactured goods; the imposition of pressures on foreign subsidiaries to increase local content; and, perhaps most important of all, the raising of tariff barriers against manufactured goods (Gereffi and Evans, 1981). The latter led to the adoption of a fivetiered import licensing system with machinery and raw materials given preference (Bergsman, 1970).

Although the horizontal ISI phase did not become the dominant industrial development strategy until 1930, the seeds that enabled this strategy to flourish eventually had been planted in the primary product export industrialization phase in two important ways: first, as previously mentioned, the export economy fostered some industrialization in industries
that had low capital and technological barriers to entry. Although most of the industries
that thrived in the primary product export economy phase produced non-durable
consumer goods such as textiles and foodstuffs, paper, glass, cigarettes, soap and
matches, there were also several noteworthy foundries that manufactured hardware,
agricultural machinery and railway wagons (Newfarmer, 1980).

Second, local capital in the primary export sector, particularly from coffee, played a
strong role in the emergence of consumer goods industries that were the focus of
horizontal ISI. Indeed, most industrial capital originated with planters or merchants who
viewed industry as complementary to their activities (Newfarmer, 1980). The planters
either provided the liquid capital from their coffee sales, which in combination with the
government subsidies to the coffee industry financed the development of new import-
competing industrial enterprises, or the planters themselves moved into complementary
industries such as sugar mills and textile factories that processed the crops they
cultivated. The important roles of planters as well as merchants that also moved into
industry in sectors in which protection could be derived from tariffs or had high
international transport costs meant that industrial production in Brazil fell less than 10 per
cent in the early depression years and by 1933 had regained its 1929 levels (Baer, 1965).
In addition, there was even the renationalization of some local manufacturing industries
as shown by the acquisition during the Depression of the Votorantim rayon mill from the
British by a local group of companies—the Ernirio de Moraes group (Gereffi and Evans,
1981). This manifested the growing accumulation of strengths by local textile
manufacturers which was already in evidence during the turn of the twentieth century
when these manufacturers became capable of replacing British imports, as mentioned.

In order of economic importance, the state, private Brazilian firms and foreign firms
participated in the horizontal ISI process (Cardoso, 1973). With the strong role of local
capital and the development of locally controlled firms and industries, the period of
horizontal ISI was consistent with a period of diminished dependency for Brazil (Gereffi
and Evans, 1981).15

By the mid-1950s, horizontal ISI was superseded by a phase of vertical ISI in which
the emphasis was on internalizing all phases in the manufacture of consumer goods (both
non-durables and durables) and integrating backwards into the domestic production of
intermediate products and capital goods that were causing a significant drain on the
balance of payments. The investments required greater technological sophistication and
capital intensity which made foreign based MNCs rather than local firms the main
instrument of industrial development. The role of foreign investment in providing capital
and technologies in the industrialization process in both the basic industries and the
leading industrial sectors meant that Brazil had taken on an associated-dependent pattern
of development (Cardoso, 1973).16 The inability of local capital to penetrate the
technologically sophisticated and capital intensive industries combined with a military
regime that supported the interests and modes of organization of international capitalism
led Evans (1976) and Cardoso and Falleto (1979) to describe the vertical ISI phase of
Brazil as the internalization of imperialism and the internationalization of the internal
market, respectively. Thus, unlike in the horizontal ISI phase, dependent development
became re-established as the dominant mode of economic growth in the vertical ISI phase
In the midst of the dependent pattern of development, the industrial strengths of the local bourgeoisie in a number of consumer goods industries and in some state-controlled basic industries producing steel as well as machinery, machine tools and other mechanical engineering sectors was increasing rapidly. To explain the growth of Brazilian manufacturing MNCs in capital intensive industries is essentially to explain the growth of Brazilian manufacturing firms in two major groups of industries: the metalworking and mechanical engineering (or non-electrical machinery) industries and the electrical equipment industry.

**THE GROWTH OF BRAZILIAN FIRMS AND MNCs IN THE METALWORKING AND MECHANICAL ENGINEERING (OR NON-ELECTRICAL MACHINERY) INDUSTRIES**

As mentioned, the origins of Brazilian firms in this sector can be traced to the several foundries that manufactured hardware, agricultural machinery and railway wagons during the primary product economy phase. In particular, the entry of Brazilian industrialists in mechanical engineering or non-electrical machinery industries where technological barriers to entry were relatively low and profits were relatively high can be traced to the period after the First World War. The ‘brilliant mechanics’ had captured an important share of the domestic market by 1920 and accounted for approximately 61 per cent of all Brazilian capital goods by 1947–49 (Leff, 1968).

The protection accorded to the metalworking and mechanical engineering industries in the large domestic market of Brazil during the period of vertical ISI (1955–1970) induced industrial development by enabling some firms to attain the scale economies of international plants, to approach rapidly the fairly stable technological frontier in their industrial fields, and to increase their exports of goods and industrial technology significantly. This was the case particularly of such firms as Romi and Metal Leve, the producers of conventional lathes and pistons, respectively (Katz, 1984) and also of other Brazilian firms in steel production (Gerdau) and in the mechanical engineering industries such as bicycles (Calóí), lifts (Villares), motor vehicle parts (Eluma, Marcopolo, SIFCO, COFAP), equipment for paper production (Pilao), capital goods (Bardella) and aircrafts (Embraer) that eventually became MNCs.

The growth of locally controlled firms in the motor vehicle parts industry that later became MNCs is of particular interest. Indeed, it was the existence of some 250 locally owned firms producing 8,000 motor vehicle parts in the early 1950s that gave government policy makers the impression that Brazil could benefit from the high linkage potential of the foreign-controlled motor vehicle industry of Brazil (Shapiro, 1994). In principle, the motor vehicle industry could serve as the hub of an integrated industrial structure by triggering the domestic production and technological advancement of suppliers of parts and components, as well as those firms in the more complementary basic industries of steel, glass, rubber and plastics in part through the provision of finance, training and technical assistance by the foreign car producers (Dahlman, 1984). However, the extent to which this happened was limited as the motor vehicle parts
industry in time became dominated by foreign firms as a result of the superior market power of the foreign MNCs which enabled them to control their supply channels either through the vertical integration of car manufacturers or through inward FDI by foreign supplier companies. A bifurcated parts sector emerged in which foreign firms predominated in large, capital and technology intensive operations producing parts in a mainly concentrated market and sold most of their output to the terminal sector (car manufacturers). Brazilian firms, on the other hand, were relegated mainly to small- and medium-sized operations that produced standardized parts in a more competitive market and which sold a greater portion of their output as replacement parts (Shapiro, 1994).

Despite the market control exercised by the foreign based MNCs in both the motor vehicle and motor vehicle parts industries, some locally owned firms in motor vehicle parts continued to flourish as reflected in the growth of their exports and outward FDI. The recent impetus for their international production has been provided by the rapid changes over the last ten years in the organizational and technical structure of their user industries particularly in the United States and Europe. Thus, in response to the demand of their clients for suppliers that do not merely provide parts or components but also assist in the development of designs, offer technological solutions and fit in with their just-in-time inventory management systems, Brazilian motor vehicle part makers such as Metal Leve and COFAP as well as the capital goods maker Bardella established foreign plants to be closer to their user industries in the developed countries (ECLAC, 1992).

The emergence of Embraer—a Brazilian mixed state—private firm and an MNC in the aircrafts industry—also stirs particular interest. Indeed, to describe the development of Embraer is to describe the development of indigenous technological capacity in the Brazilian aircrafts industry and the desire to achieve local control over this strategic industry (Dahlman, 1984). The creation of Embraer stemmed from the need to have a monopolist in the domestic aircraft industry in which scale economies are only achievable at very large volumes of output and which required intense technological effort. The eventual success of Embraer was reflected in its ability to produce a broad range of different airplane models for military and commercial uses with a high percentage of domestic content, and to export these to both developed and developing countries. Its development as an MNC was prompted by the need for a local presence in foreign markets in order to obtain contracts to build military training aircrafts for the national Air Force. This explains the firm’s establishment of aircraft assembly operations in Cairo and Belfast (Wells, 1988).

THE GROWTH OF BRAZILIAN MNCs IN THE ELECTRICAL EQUIPMENT INDUSTRY

Although MNCs in the electrical equipment industry were among the pioneering MNCs in manufacturing along with those in the bicycles and motor vehicle parts industries, the origins of Brazilian firms in the electrical machinery industry have a more recent vintage compared to those of the metalworking and mechanical engineering industries. Indeed, the origins of Brazilian producers of electrical products can be traced only after the Depression (coinciding with the onset of the horizontal ISI phase), despite the rapid
growth of electrical generating capacity and the final demand for electrical goods in the period prior to the Depression (Newfarmer, 1980). The effective barriers to imports of consumer products imposed as a result of the scarcity of foreign exchange during the Depression created a fortuitous environment for the entry of domestic firms into production relatively free of competition (at least until 1955 when foreign based MNCs began to manufacture appreciable quantities of electrical machinery in Brazil). The entry of domestic firms was, however, not in heavy electrical machinery, where high technological barriers impeded their entry into production, but was rather confined to a segment of the industry that had relatively low technological barriers to entry. Thus, most of the domestic entrants had undertaken the assembly production of electrical wire, small parts and light electrical appliances such as radios, television sets and other small appliances, and eventually their products were rapidly replacing imports in these product lines. Technologies for production of these simple consumer electrical products were acquired either through purchases from firms in the developed countries which could not reach the Brazilian market with the onset of horizontal ISI after the Depression, or through reverse engineering by which Brazilian firms copied the design of products previously imported. The significant growth of local participation in the electrical equipment industry (or a segment of it) between 1930 and 1955 led to above average growth rates for the industry as a whole.

The developments since the onset of the period of vertical ISI had negative repercussions on the growth of Brazilian electrical producers. First, the implementation of SUMOC Instruction 113 in January 1955 which granted foreign MNCs cheap access to foreign machinery favoured the entry of foreign MNCs that sustained industrial growth at the expense of denationalization. Thus, some two-thirds of the Brazilian electrical industry was in the hands of foreign MNCs by 1961 when SUMOC Instruction 113 expired, and this share grew further to over 75 per cent by 1974 (Newfarmer, 1980). The denationalization owed partly to the takeovers or mergers of many Brazilian firms with foreign MNCs. Those firms that were not acquired or merged with foreign companies were either compelled to associate with the foreign MNCs to secure favourable import terms or to seek foreign licences from the United States to keep abreast of latest technologies. Thus, Brazilian firms came to produce such electrical appliances as Emerson, Kelvinator, Westinghouse and Whirlpool under licences. Second, the dominance of foreign MNCs in the electrical equipment industry, particularly in the heavy electrical equipment sector, and the behaviour of these firms to maintain market control, both weakened price competition and erected a further barrier to entry to domestically owned firms quite apart from the high technological requirements of this segment of the industry. It meant that Brazilian firms remained confined to positions of high technological dependency or marginal suppliers in their own domestic market.

This historical review of the origins of Brazilian firms in the electrical equipment industry helps to shed light on the emergence of Brazilian MNCs in this industry to include Gradiente Electronics (the leader in stereo equipment), Inepar (electrical control equipment), Inbrac (cables and wires), Nansen (electricity meters) and Brastemp (refrigerators). It also helps to explain why Brazil had not spawned firms or MNCs in the more dynamic segments of the electrical equipment industry.
Conclusion

This chapter analysed the emergence and evolution of Brazilian MNCs over the last 30 years. It examined the main determinants of outward FDI and their industrial and geographical patterns in two distinct time phases: the period of emergence from the late 1960s to 1975, and the period of development in the period since 1975. Although the pioneering Brazilian MNCs spanned the three sectors of economic activity, the main thrust of outward FDI by Brazilian MNCs had been in services by construction and consulting engineering companies. Unlike American MNCs that emerged in a major way in outward FDI in the primary sector to exploit firm-specific assets in resource extraction and processing nurtured in the natural resource abundancy of the United States, the security of the supply of raw materials or natural resources as a motive for outward FDI in the emergent phase of Brazilian MNCs was rather unique to the Brazilian state-owned company, Petrobrás, and specific to one natural resource—oil—given Brazil’s rich agricultural and mineral resources. The only other exception of Brazilian resource-based FDI was the joint venture established with the Colombian government by the Brazilian state steel enterprise, Siderbras, to exploit coal in Colombia with the objective of gaining independence from the United States for such raw material (White, 1981). In this respect, the Brazilian MNCs share more common features with Swedish MNCs where firms in the industries of mining, metal production and forestry became MNCs only to a very limited extent (see Chapter 4).

Outward FDI by Brazilian manufacturing companies in the emergent phase was also rather limited. International production by the earliest Brazilian manufacturing MNCs in bicycles (Calói), electrical products (Gradiante Electronics) and motor vehicle parts (Eluma and Marcopolo) which consisted mainly of assembly operations was a means to overcome the high degree of protection in export markets. The period since 1975 described the major expansion of Brazilian MNCs particularly in manufacturing and banking. The establishment of an overseas network by Brazilian state-owned and privately owned banks in the developed countries enabled the banks to attract resources from international capital markets, and their expansion in Latin America was allied closely with the rapid growth of Brazilian exports to the region (Guimaraes, 1986). The period also witnessed the emergence of Brazilian manufacturing MNCs in a major way, many of which were accounted for by leading firms in their respective industries. In many respects, the extent of the multinationality of these firms remains emergent as reflected in the small share of sales by foreign subsidiaries and licensed production abroad in the total sales of the companies and the continuing importance of exports as the main modality of serving foreign markets.

The quarter-century since 1975 described the emergence of an increasing number of Brazilian manufacturing MNCs that span a broad range of industries to include food products, textiles, clothing and footwear, paper packaging, wood and furniture, bicycles, lifts, electrical products, steel products and capital goods, motor vehicle parts, and aircrafts. To overcome the high degree of protection in export markets continued to be an
important determinant behind the emergence of Brazilian manufacturing MNCs—at least until 1980. In the period since 1980, however, international production became a tool of firms as active agents to fulfil several objectives: to penetrate the markets or market segments of developed countries as in the cases of Cacique (instant coffee), Copersucar (coffee), Gradiente Electronics (stereo equipment), Hering and Alpargatas (clothing), Securit and Duratex (furniture) and Labra (pencils); to have a significant local presence in order to obtain contracts in host country markets as in the cases of Bardella (capital goods), Metal Leve (pistons), SIFCO (shaft machining), COFAP (engine parts), and Embraer (aircrafts); to broaden the geographical scope of their exports as in the case of Nansen (electricity meters); to add value to their product as in the cases of ITAP and Toga (packaging), as well as Cacique (instant coffee); and to integrate in more profitable higher value added activities in foreign markets as in the case of CVRD (steel). The emergence and growth of Brazilian MNCs in both resource-based industries and more capital intensive industries is a reflection of Brazil’s large and developed manufacturing sector among developing countries that builds upon its rich agricultural, forestry and mineral resources as well as efforts to expand industrial capacity in capital goods industries during the primary product economy industrialization phase and import substitution industrialization phase of the Brazilian economy.

Notes

1 The investments by Calói in Bolivia were particularly favoured when a Bolivian firm supported by the government began to look for foreign partners for the domestic production of bicycles in response to the prospects of high profits from protection (White, 1981).

2 As a result of the aggressive system of export promotion, Brazilian industrial exports increased in real terms by 2.7 times between 1975 and 1980, a rate of growth much faster than that of total exports which grew in real terms by 1.7 times over the same period (Villela, 1983).

3 The Brazilian system of export promotion contributed greatly to the decision of Brazilian firms to become MNCs. The system consisted of a large number of financial and credit incentives, of which the most important in stimulating outward FDI were the financing of exports of capital and durable goods, the financing of sales of services abroad (including the purchase in Brazil of machinery, equipment, vehicles, instruments, etc. for the execution of construction jobs overseas), the financing of the establishment of enterprises abroad by manufacturing and exporting companies for a period of up to three years, and lines of credit (some 53 of them) to facilitate the purchase of goods and services in Brazil. Interest rates charged on all the above described credits were highly subsidized (Villela, 1983).

4 An indication of the high degree of reliance on foreign markets is seen in Mendes Junior (one of the largest privately owned Brazilian construction firms) that earned more than a third of its revenues abroad in the mid-1980s (Wells, 1988).

5 For example, Engevix—a leading Brazilian consulting engineering firm—designed
part of the underground transportation system of Baghdad using expertise gained when it helped plan the São Paulo Metro handled by the Soferail company (France) in the late 1970s. The firm absorbed the technology and adapted it to Iraq (Wells, 1988).

6 Such is the case, for example, with Tenenge—an industrial engineering firm with subsidiaries in Chile and Paraguay—that can deliver state-of-the-art refineries through composite technologies developed by the firm from the fusion of imported technologies obtained through former licensing agreements and its own technology (Wells, 1988).

7 An indication of the continuing international expansion of construction and consulting engineering firms since the period of their emergence was seen in the growing number of firms engaged in outward FDI. For example, some 31 of these companies were involved in outward FDI between 1977 to 1982. The investments, however, were highly concentrated with the three largest firms accounting for 68 per cent of the total investment, and 19 firms for 99 per cent of the total investment (Guimaraes, 1986).

8 Cotia Comércio Exportação e Importação is a trading company founded by the Paulo Brito group—a family company owning cattle ranches and cold storage facilities for meat in São Paulo (Villela, 1983).

9 In 1976, Copersucar acquired Hills’ Brothers Coffee, the fourth-largest processor of coffee in the United States in order to integrate vertically into coffee processing as well as the marketing of coffee, cocoa and sugar in the United States through an established brand name. However, the need for a marketing outlet for sugar disappeared unexpectedly as Brazil’s energy programme generated a rapid growth in demand for sugar to be made into alcohol for fuel (Wells, 1983). On the other hand, Cacique—the leading exporter of Brazilian instant coffee—entered into a joint venture with a Chinese state farm to bottle coffee starting in 1987. The company’s aim was to progress beyond exporting unpackaged instant coffee and to sell most of the bottled coffee to Japan, Australia and other Asian markets (Wells, 1988).

10 This strength does not necessarily guarantee success, as shown by the outward FDI of Copersucar in the processing of coffee and the marketing of coffee, cocoa and sugar in the United States which failed to make adequate returns and led the company to sell out to Nestlé in 1986 (see Wells, 1988).

11 However, pressure from local competition forced Securit to close down this foreign operation (Wells, 1988).

12 The massive public debt incurred in the process of improving urban infrastructure became an overwhelming burden as public debt service soared to 43 per cent of export earnings in 1932–33 (Baklanoff, 1971).

13 It was the conviction of Getúlio Vargas to abandon Brazil’s agricultural vocation and thus to pursue policies supporting ISI (Gereffi and Evans, 1981).

14 Symbolic of the state investment in basic industry was the formation of the huge Volta Redonda steel complex (Cardoso, 1973).

15 However, although local capital may have played a leading role in the shift from primary product export phase to the horizontal ISI phase during the Great Depression, inward FDI also assisted in the transition process. This is shown in
particular in the growth of FDI in the manufacturing sector in Brazil during the period. Indeed, almost one quarter of American FDI in Brazil in 1929 was in manufacturing (Gereffi and Evans, 1981).

16 Evidence of the role of foreign capital and technologies in the development of even basic industry is seen in the steel industry. Usiminas, one of the three large state-owned integrated steel mills in Brazil, initially obtained the technology necessary for steel production through a Japanese joint venture in the early 1960s (Dahlman, 1984).

17 The dependent development arose largely from the absence of a strong industrial class whose interests were distinct from agricultural and commerce, and the political supremacy of an export-oriented oligarchy that precluded a more nationalist government policy that allowed for the indigenous development of national industry in the more sophisticated products, but instead left the door open to foreign goods (or foreign firms) (Newfarmer, 1980). Thus, instead of changing their comparative advantage systematically in more dynamic industries, Brazilian producers chose to maintain comparative advantages in coffee and consumer non-durables of low technology and capital intensity, while allowing imports or foreign MNCs to dominate the rapidly growing industrial sectors. The cycle of cumulative decline became self-perpetuating as the market power exercised by foreign MNCs over the supply of products, production technology, international finance, etc. further precluded the emergence of strong indigenous firms that could effectively compete.

18 Up to 70 per cent of the output of the capital goods industry was exported in 1984 (Wells, 1988). In addition, some 27 of the 58 Brazilian manufacturing firms that accounted for 69 of the 112 overseas operations involving exports of industrial technology between 1976 and 1981 were capital goods manufacturers. Capital goods manufacturers provided the dominant source of industrial technology exports in such industries as machinery, equipment and components, sugar and alcohol and paper and pulp (Sercovich, 1983).

19 Owing to its policy to increase the participation of local firms in the manufacture of airplanes, Embraer encouraged the development of the local aircraft parts industry that became important exporters in their own right (Dahlman, 1984).

20 This is not to say that Brazilian industrialists in the electrical equipment sector never came to existence in the period before the Depression. The firm, Guinle and Gaffree, that owned one of the largest Brazilian enterprises of the early twentieth century—the docks at Santos—established a substantial system of public utility companies dominating such major cities as Salvador, Bahia and Port Alegre and Rio Grande do Sul but these were eventually sold in the late 1920s to The Electric Bond and Share Company (a finance subsidiary of the United States-based General Electric Company). The sale was owing largely to the inability of Guinle and Gaffree to raise sufficient capital from the North American capital markets to modernize and expand their systems. Thus by 1920, foreign-owned companies either built or acquired most of the electrical generating capacity in Brazil and provided the greatest demand for heavy electrical equipment. Their demands were largely met through imports because until 1920 there were virtually no electrical
products produced locally despite the creation of a partial and temporary protection to foster the growth of local companies and to encourage the entry of foreign MNCs (Newfarmer, 1980).

21 More than 80 per cent of all foreign direct equity flows entered as machinery imports under Instruction 113 between 1956 and 1960. About 80 per cent of these were invested in plants to produce heavy electrical equipment, refrigerators and compressors, telecommunications equipment, cable and conductors and electronic apparatus (Newfarmer, 1980).

22 It is therefore not surprising to discover that the refrigerator production facility established in 1990 in Argentina by the Brazilian firm, Brastemp, through a part acquisition of a former Philips affiliate represented a joint investment with the American electrical equipment company, Whirlpool, with which it had a long association.

23 The expansion of foreign MNCs in the Brazilian electrical industry was not predicated solely on their superior technical efficiency, but to their market tactics and strategies made possible by their superior market power: interlocking directorships, mutual forbearance, control of supply channels, cross-subsidization and predation, formal and informal collusion, formal political ties, product differentiation and acquisition (Newfarmer, 1980).
6

Conclusion

The emergence and evolution of multinational corporations from the resource-abundant countries

This part of the book analysed the emergence and evolution of MNCs based in resource-abundant countries by focusing on three countries of different sizes. In particular, it compared the growth of MNCs from resource-abundant large countries such as the United States and Brazil with that of MNCs from an resource-abundant smaller country of Sweden. The main rationale was to determine whether there exists a common pattern in the emergence and evolution of MNCs from resource-abundant countries. The general conclusion that can be drawn is that to some extent there is a common pattern in the emergence and evolution of MNCs from the three resource-abundant countries. The similarities are closest when considering the pattern and growth of their outward FDI in the manufacturing sector and the mining sector (see Table 6.1).

Regardless of the size of the countries concerned, the emergence of manufacturing firms and MNCs based in the three resource-abundant countries derive commonly from cumulative strengths in the engineering industry generally comprising metal products, machinery and transportation equipment. The basis of their affinity is the abundance of mineral resources in the three countries which fostered a well-entrenched tradition of industrialization based on metals processing, the technical and metallurgical know-how of which spilled over into related sectors of the engineering industry such as machinery and transport equipment.

As has been learned in the individual country case studies, the emergence and expansion of American FDI in manufacturing was linked to the rapid development in the 1850s of American technologies in certain metallurgical industries (i.e. machine tools, guns, reapers, and sewing machines) linked with mass production in which the United States had already acquired world leadership (Wilkins, 1970). Many American companies in the metallurgical industries sought export markets to dispose of surplus output and obtain economies of scale, and fulfilled a pioneering role in international production prior to the American Civil War. Similarly, the growth of the Swedish engineering industry was an outcome of the Swedish industrialization phase between 1870 and the First World War that built upon cumulative strengths in iron and steel production based on indigenously abundant
Table 6.1 Resource-abundant countries: variations in the early stages of outward direct investment across different countries

<table>
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<th>Examples of countries</th>
<th>Dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
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<td>prospecting and development in</td>
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<td>Sales and manufacturing investments</td>
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<td>opportunity to earn higher profits, to</td>
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<td>Sales subsidiaries in petroleum and, in</td>
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exploration in the late nineteenth century in Europe, Asia, Mexico and South America. Foreign refining motivated by high import duties on refined oil in export markets and to overcome local competition. Foreign exploration motivated by the need to supplement American oil supplies. Agricultural investments in the late nineteenth century in the Caribbean (Cuba and the West Indies), Canada and Mexico. American FDI motivated by the richness of foreign natural resources located in close proximity to the United States. The establishment of agricultural estates was supported by investments in transportation by steamship or railroads.

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
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</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>Establishment of sales subsidiaries to sell the products of the engineering industry consisting of metal manufactures, machinery and transport equipment</td>
<td>Manufacturing firms, forwardly integrating</td>
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<tr>
<td></td>
<td>Establishment of production subsidiaries to produce for the host country market the products of the horizontally integrating engineering industry consisting of metal manufactures, machinery and transport equipment</td>
<td>Manufacturing firms, backwardly or horizontally integrating</td>
</tr>
<tr>
<td></td>
<td>To a limited extent, backward vertical integration in resource extraction in resource-rich countries</td>
<td>Resource-based firms (mainly forestry firms), backwardly integrating</td>
</tr>
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</table>

Brazil Oil exploration and drilling activities. International production in bicycles, electrical equipment

State-owned firm. Manufacturing firms, typically exporting
sources of high quality iron ore. In combination with other country-specific advantages to include major investments in technological education and training, the large degree of trade orientation and the close personal contacts within the Swedish industrial establishment, there was the rapid absorption and adaptation of technological innovations and their application in modern industrial production in the engineering industry. Technologically innovative engineering firms exported at an early stage of their firms’ history and became MNCs rapidly to enable a celeritous establishment in foreign markets. Finally, the origins of Brazilian firms and MNCs in the metalworking and mechanical engineering industries can be traced to the primary product export economy industrialization phase of the Brazilian economy between 1800 and 1930 that fostered some industrialization in sectors that had low capital and technological barriers to entry, among which were several noteworthy foundries that manufactured hardware, agricultural machinery and railway wagons (Newfarmer, 1980). The ‘brilliant mechanics’ of Brazil had captured an important share of the domestic market by 1920, accounted for approximately 61 per cent of all Brazilian capital goods by 1947–49 (Leff, 1968) and eventually became MNCs in such diverse industries as bicycles, lifts, steel products and capital goods, motor vehicle parts and aircrafts.

Apart from the common emergence of manufacturing MNCs based in the engineering industry broadly defined, the process of international expansion of firms in this industry has been fairly common, despite the seemingly disparate attempts to model such process in the case of American metallurgical companies and Swedish engineering companies by Wilkins (1970) and Johanson and Wiedersheim-Paul (1975), respectively. Four stages were described by Wilkins (1970). In the first stage, the American concern sold abroad through independent agents (through an export person or export or commission houses in New York City) or on occasion filled orders directly from abroad. In general, companies started to export using the facilities of international trading firms. In the second stage, the company appointed a salaried export manager, an existing export agency and its contacts, or independent agencies in foreign countries to represent the company. In the third stage, the company either installed one or more salaried representatives, or a sales branch, or a distribution subsidiary abroad, or it purchased a formerly independent agent located in a foreign country. At this point, for the first time, the company made a foreign investment. In the fourth stage, a finishing, assembly or manufacturing plant might be established to meet the needs of a foreign market.

Such incremental process of establishment in foreign markets by American metallurgical firms based in a large domestic market has many common elements with the concept of an ‘establishment chain’ proposed by Johanson and Wiedersheim-Paul
(1975) in describing the gradual process of penetration in foreign markets of Swedish engineering firms based in a much smaller domestic market. Thus, after mechanizing and specializing in a technically advanced product, firms secured the home base and engaged in exports to achieve scale economies; this was associated with the use of a network of agents or representatives (or travelling salesmen) employed by the firms and then by the establishment of a sales subsidiary abroad; and, finally, by the initiation of international production.

Despite the broad analogy in the process of international expansion of American and Swedish firms in the manufacturing sector, two main factors differentiate the American and Swedish models. Firstly, the first stage described in the American model of exports being handled by independent agents or international trading firms was often bypassed in the Swedish case. This was because, unlike their counterparts in the staple raw materials-based industries, the high-quality Swedish steel mills and the new industrial Swedish companies based on mechanical engineering had to establish direct contacts with foreign markets by employing company-appointed representatives or agents or travelling salesmen (Hörnell and Vahlne, 1986) owing to increased product differentiation (e.g. production of special steel versus ordinary steel), and the necessity to have intimate knowledge of market developments and to adapt products to customers’ particular needs (Carlson, 1977). Secondly, by comparison to the United States that is another resource-rich country of a larger size, Sweden—as with all small countries in general—has had earlier forays into international markets through exports (Swedenborg, 1979) associated with their offensive and aggressive strategy to overcome the limited size of its domestic market.

Another common pattern in the growth of MNCs from the three resource-abundant countries lies in the importance of the mining sector, once again a feature of the presence of rich and abundant mineral resources in the three countries which enabled American, Swedish and Brazilian firms to develop management and organizational skills and technologies in mineral resource extraction and processing which were exploited profitably abroad. Indeed, mineral extraction and processing featured at some stage in the history of the growth of MNCs based in the three resource-abundant countries; however, this type of investment assumed the highest prominence in the case of the United States and one that emerged at an early stage of development of American MNCs. Although the mining sector accounted for the second largest share of American FDI until the late nineteenth century after railroads, the large capital requirements of mining prospecting and development enabled the mining and smelting sector to become the most important sector of American FDI between the late nineteenth century and 1929. The main purpose of these mining investments by American firms was to profit from the attractive business opportunities arising from the rich and undeveloped mineral resources of Mexico, Canada and South America and to supplement the domestic mineral resources of the United States.

By contrast, Swedish firms in the mining sector became MNCs only to a very limited extent. Thus, a striking difference between Sweden and the larger sized but also resource-rich United States was in the relative importance of outward FDI to exploit foreign raw materials. This is explained in the context of the development of competitive advantages
by Swedish industry in the extraction and processing of domestically available raw materials in a small country in relation to the large scale in which most investment in raw materials is typically undertaken (Swedenborg, 1979). Apart from the Swedish mining firm, Gränges, that operated foreign mines since the 1950s, and notably the LAMCO mine in Liberia, Boliden is one of the few other major firms in the mining and steel industries that invested in major foreign operations in the 1980s (Sölvell et al., 1991).

In broad similarity to Sweden, Brazilian firms in the mining sector became MNCs only to a very limited extent and although their emergence can be traced to the 1970s, their major growth took place in the 1980s. While their overseas activities in mineral prospecting did not always involve the establishment of subsidiaries (as in the case of the state-owned Companhia Pesquisa de Recursos Minerais (CPRM) whose mineral prospecting activities in Africa was undertaken through contracts), the accumulated experience of Brazilian companies nurtured within the vast and resource-abundant environment of Brazil was directly applicable to their overseas mineral prospecting activities.

Analysing the pattern of MNC growth of the three resource-abundant countries in sectors other than manufacturing and mining shows some further resemblance even though the resemblance may not be universal to all three countries but to two of them. This is the case when examining outward FDI in the petroleum and forestry industries in particular. While the petroleum industry has assumed greater importance for MNCs from the United States and Brazil, the forestry industry has assumed greater importance for MNCs from Sweden and Brazil.

The growth of MNCs in the petroleum industry seems to have featured prominently in the resource-abundant large countries of the United States and Brazil but not in the resource-abundant small country of Sweden. However, despite the common importance of the petroleum industry for American and Brazilian MNCs, the determinants of outward FDI in the industry differed in the two large countries. The emergence and expansion of American FDI in petroleum was linked to the presence of rich and abundant petroleum resources in the United States which enabled American petroleum companies to develop management and organizational skills and technologies in petroleum extraction and processing which were exploited profitably abroad. In sharp contrast, the emergence and expansion of Brazilian FDI in petroleum arose from the necessity to search for new sources of foreign oil in light of Brazil’s position as a major importer of petroleum. Towards that end, Braspetro—a subsidiary of the state-owned oil monopolist Petrobrás—was created in 1972 to fulfil a strategic national interest of securing oil supplies abroad through risk contracts and close relations with OPEC countries. It became responsible for the foreign exploration, production, commerce, transportation and storage of oil and its products, as well as for the execution of technical and administrative services related to these activities (Guimaraes, 1986). Thus, although Braspetro was based in a petroleum scarce country, it drew upon the accumulated experience of its parent company in oil and gas exploration, geophysics and drilling in addition to learning by doing on its own in its various foreign activities. This enabled the firm to build up even more advanced engineering and managerial skills related to petroleum exploration and to progress over time to become its own profit centre and not simply an instrument of
national policy. Evidence for this was found in its increasing ability to enter into risk investments, to render technical services in the construction and installation of oil rigs, refineries, storage systems and pipelines, to participate in the oil trading market and to use deep-sea oil production know-how in the North Sea and Gulf of Mexico—former turfs of major oil companies (Villela, 1983; Wells, 1988).

The growth of MNCs based in the forestry industry seems to be closely similar in the case of both Sweden and Brazil but not the United States. In both Sweden and Brazil that have rich forestry resources, backward vertical integration in resource extraction in resource-rich foreign countries was not a prominent activity of their firms, particularly so in the case of Brazil. In both these countries, the extraction and processing of rich forestry resources in the home country was largely an activity dominated by local firms and undertaken in close proximity to local sources of raw materials and energy. Firms from both these countries experienced growth of international production but these took different forms in each country. In the case of Sweden, the rapid growth in international production of firms based in the forestry or paper and pulp industries took mainly the form of forward vertical integration achieved through the full or partial acquisition of their major foreign customers—a move in response to the entry of the North American pulp and paper firms in Western Europe at the end of the 1950s (Carlson, 1977). The forward integration in foreign markets of largely domestic production oriented Swedish forestry and paper and pulp firms was motivated as much by the profitable exploitation of accumulated know-how and skills in extraction and processing of natural resources (Swedenborg, 1979) as by the need to gain market knowledge and to influence product development in the pulp- and paper-consuming industries (Carlson, 1977). In the early 1970s, the Swedish pulp and paper manufacturers had established more than 40 manufacturing plants abroad, mostly in the United Kingdom and Germany (Sölvell et al., 1991), but there have also been outward FDI to gain access to raw materials in Canada and the United States and the production of pulp based on domestic raw materials in Portugal, Canada and Brazil (Söderström, 1980; Olsson, 1993) to safeguard their future expansion. The further growth of their European investments in the 1970s and 1980s enabled the Swedish pulp and paper companies to build dominant market positions (Sölvell et al., 1991).

By contrast, the rapid growth in international production of Brazilian firms based in or with close links to the forestry industry took mainly the form of horizontal integration by manufacturers in foreign markets in such industries as wood products and furniture, pencils, paper and cardboard packaging—a move to support their objective to increase their foreign sales through direct sales and, in some cases, international production, while still taking advantage of an abundant and low-cost supply of wood from Brazilian forests.

On the other hand, the foreign stakes of American firms in the forestry industry was geared to seek timber and other forestry-based products in their quest to become more independent of foreign producers as well as to make greater profits. Canada was an important host country for these types of investments by American firms owing to the presence of an abundant supply of inexpensive timber, good water power, relatively cheap labour and the absence of American duties on Canadian newsprint since 1911. The forward integration of these firms towards the secondary processing of extracted natural
resources in Canada in response to the requirements of host country industrialization policy made lumber and paper and pulp mills account for at least one-third of American FDI in manufacturing in Canada between 1897 and 1914. The inflation in the United States brought on by the war boom led to the further expansion of American FDI in Canadian pulp and paper mills to service the needs of American domestic enterprises that were major users of paper.

Beyond the similarity in the pattern of MNC growth in particular industries must be mentioned some of the unique sectors in which any one of the three resource-abundant countries have spawned significant MNC activity that was distinctive and incomparable to the growth of MNCs from the other resource-abundant countries. To take just a few illustrative examples, outward FDI in civil construction and consulting engineering seems to have been a peculiar element of Brazilian MNCs that was unmatched in American and Swedish MNCs. In addition, the early outward FDI in the railroads sector and the metamorphosis or merger of the early mercantile businesses of firms into more diversified and sometimes entirely different enterprises engaged in lines of businesses besides commerce (to include mining, agriculture, industry, transportation and banking) were some of the notable features distinguishing American MNCs from MNCs from Sweden or Brazil. Outward FDI in agriculture was also associated solely with American MNCs particularly during the period of their emergence. Thus, despite the similar importance of the agricultural industry in the history of the domestic industrial development and export pattern of Sweden and Brazil, this sector did not form a significant basis of the outward FDI of Swedish and Brazilian firms. Not only did the industry remain largely in the domain of domestic firms in both these countries, the firms became important international companies through exports but not through outward foreign direct investment. Unlike American MNCs, the search for agricultural produce in foreign countries with high agricultural productivity did not provide a driving force for Swedish and Brazilian MNCs.

Going beyond the examination of specific industries of importance to particular resource-abundant countries into a broader examination of the breadth of industries that MNCs from resource-abundant countries have emerged and evolved shows that MNCs from the resource-abundant large countries of the United States and Brazil were involved in a wider breadth of industries by comparison to the MNCs from the resource-abundant small country of Sweden. Considering the manufacturing sector alone, American MNCs have emerged first in metallurgical industries as mentioned, and then evolved in the 1920s in industries that competed on the basis of product differentiation (as in the case of food and drink, textiles and clothing), as well as in industries with distinctive products. American industries with worldwide technological leadership gained from the transfer abroad of techniques in product design and engineering and organization of production (electrical industry, motor vehicle industry, certain metal products, petroleum), as have companies with advanced marketing methods (motor vehicle industry, metal products, petroleum). The kinds of American manufacturing enterprises that invested abroad in later decades resembled closely the investors of earlier years: these were leading firms in their industries in the United States that had advantages in technology, unique products and a long history of international economic orientation (see Table 6.2). The fact that an
industry was technologically advanced did not ipso facto guarantee large FDI, but it generally meant that leading companies in that industry would in time, after

Table 6.2 Resource-abundant countries: actual development paths for outward direct investment, and their association with local industrialization across different countries

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
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<tbody>
<tr>
<td>United States</td>
<td>Slow growth of domestic demand brought about by the depression between firms 1893 and 1897 led firms with surplus production to turn to foreign markets as an outlet for surplus goods that could not be sold at home. Exports led to the establishment of foreign sales branches and then foreign factories at a later stage. The trend towards domestic mergers at the end of the nineteenth century associated with the development of domestic capital markets and the Sherman Antitrust Act that forebade agreements among independent firms to restrain trade. Actions by the United States government such as the duty free status accorded to exports of natural resources in their unprocessed or processed state. The rapid development in the 1850s of American technologies in certain metallurgical industries (i.e. machine tools, guns, reapers, and sewing machines) linked with mass production in which the United States had already acquired world leadership. The rapid importance of market-oriented FDI by American firms in the 1920s was manufacturing associated with relatively new industries.</td>
<td>Manufacturing Large manufacturing firms, typically resource based</td>
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<td>Manufacturing firms, typically resource based</td>
<td>Agricultural firms</td>
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<td>Agricultural firms</td>
<td>Manufacturing Large manufacturing firms, typically resource based</td>
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<td>Manufacturing firms, typically resource based</td>
<td>Manufacturing Large manufacturing firms, typically resource based</td>
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textile and clothing), or firms with distinctive products and techniques in product design, engineering and organization of production (electrical equipment, motor vehicles, certain metal industry products, petroleum) or advanced marketing methods (motor vehicle industry, metal products, petroleum). International production was prompted by prospects of profitable business opportunities in the host country which could not be fulfilled by exports owing to trade restraints.

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<th>Examples</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
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<tbody>
<tr>
<td>The parallel expansion of American firms in public utilities in both domestic and foreign markets between 1914 and 1929 was favoured by the strong support of the United States government and the growth of ownership advantages of American firms in the form of capital, technology, management and marketing expertise. The kinds of American manufacturing enterprises that invested in plants abroad since the Second World War resembled closely the investors of earlier years: these were leading firms in their industries in the United States that had advantages in technology, unique products, and a long history of international economic orientation. Among these were firms in transportation equipment, chemicals, machinery, food products, electrical machinery and primary and fabricated metals. The fact that an industry was technologically advanced did not ipso facto guarantee large FDI, but it generally meant that leading companies in that industry would in time, after finding exports could not continue to</td>
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<tr>
<td>Large manufacturing firms, typically exporting firms</td>
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<td>Utility companies</td>
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fill foreign demand, show an interest in extending their business abroad through outward FDI. This enabled the firms to penetrate new overseas markets as well as to maintain their long-established position in foreign countries and to meet rising foreign competition. Further industrial upgrading towards the services sector in the domestic economy and associated growth of exports and outward FDI in services

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<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
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<tbody>
<tr>
<td>Sweden</td>
<td>Export earnings from wood and iron products financed the establishment of new industrial companies of the late eighteenth century. The growth of the engineering industry generally consisting of metal manufactures, machinery and transport equipment was an outcome of the industrialization phase between 1870 and the First World War. In this phase, the technical and metallurgical know-how in metals production based originally on iron and steel production from local sources of high quality iron ore spilled over into the engineering industry. Technologically innovative engineering firms that exported at an early stage of their firms’ history became MNCs rapidly to pursue markets, defend export markets, overcome high transportation costs and establish a local presence. Vertical integration in the 1960s and 1970s to establish production closer to final markets abroad and exploit accumulated know-how in resource</td>
<td>Manufacturing firms in the engineering industry</td>
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<tr>
<td>Services firms</td>
<td>(primarily banks and brokerage houses, professional services, hotels and tourism-related services, car rentals, etc.)</td>
<td>Forestry firms, forwardly integrating</td>
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extraction and processing in foreign markets, to gain market knowledge and influence product development in the pulp- and paper-consuming industries, and to respond effectively to the entry of North American firms in the pulp and paper industry in Western Europe at the end of the 1950s.

The relaxation of foreign exchange controls in Sweden since 1987 and controls on investment in financial assets (largely in property and finance) led to the overseas expansion of Swedish firms, particularly between 1974 and the early 1980s.

Brazil

The rapid growth of Brazilian exports to the Latin American region and the need to have a presence in the developed countries to attract resources from international capital markets led to the overseas expansion of Brazilian banks, particularly between 1974 and the early 1980s.

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<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
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<tr>
<td>Growth of international production in a wide range of industries in the 1980s to include resource-based and capital intensive industries associated with the large size and breadth of the Brazilian economy that built upon both its rich agricultural and mineral resources as well as efforts to expand industrial capacity in capital goods sectors. The sustained strengths in primary product-based industries is a legacy of its primary product export economy industrialization phase, while that in capital goods-based industries was a product of the various phases of import substitution industrialization. Overseas mineral prospecting activities in the 1980s based on accumulated experience nurtured in the vastness and resource abundancy of Brazil.</td>
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<td>Manufacturing firms</td>
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<td>Resource-based (mainly minerals) firms</td>
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finding exports could not continue to fulfill foreign demand, show an interest in extending their investments abroad. The American companies whose entrepreneurs exhibited farsighted leadership grew rapidly and made the most far-ranging investments in foreign countries. These features describe consistently the growth of American MNCs over time, particularly in the manufacturing sector.

By comparison, Swedish manufacturing MNCs have had a narrower industrial focus in the engineering industry generally and, to a lesser extent, in the pulp and paper industry. Despite their narrower industrial focus, Swedish firms in these industries were technologically intensive, had distinctive products and a longer history of international economic orientation compared to the United States owing to their small country status. Many Swedish firms have become world leaders in their product niches on the basis of product design, engineering and organization of production and advanced marketing methods.

Although Brazilian manufacturing MNCs—like those from the United States and other large countries generally—were also involved in a wide breadth of industries to include food products, textiles, clothing and footwear, paper packaging, wood and furniture, bicycles, lifts, electrical products, steel products and capital goods, motor vehicle parts, and aircrafts (see Table 6.2), these firms did not compete on the same basis as American or Swedish

<table>
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<th>Stages of national development</th>
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<td>Form of technological competence of leading indigenous firms</td>
</tr>
<tr>
<td>Type of outward direct investment</td>
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Table 6.3 Resource-abundant countries: technological accumulation and the national course of outward direct investment

Source: Author’s compilation based on the analysis contained in the country chapters.
manufacturing MNCs. Although Brazilian manufacturing firms in the metalworking, mechanical engineering and electrical equipment sectors had fairly advanced foundry skills and skills in the organization of production, these firms did not feature prominently in trademarked or branded merchandise widely advertised in Brazil. In fact, as the experiences of some Brazilian MNCs such as Copersucar and Gradiente Electronics showed, some of the outward FDI was geared to penetrate the markets of developed countries by acquiring an established trade name abroad. Neither has any Brazilian industry or firm attained significant worldwide technological leadership (the closest it had achieved was the approach to the world technological frontier where this was fairly stable in some metalworking and mechanical engineering industries) nor developed sophisticated technological advantages and advanced marketing methods. Thus, in relating stages of national development to the form of technological competence of leading indigenous firms, the type of outward FDI and its industrial course over time, MNCs from Brazil are at an intermediate stage of development compared to the more advanced American and Swedish MNCs, despite the similarity in some patterns of their MNC growth (see Table 6.3).
Part III
Multinational corporations from the resource-scarce large countries
The emergence and evolution of multinational corporations from the United Kingdom

Introduction

During the era of Pax Britannica that lasted until the 1860s and 1870s, the United Kingdom was the world’s premier industrial nation and the head of an imperial empire that spanned vast territories in developing countries or newly settled primary producing areas (Dunning, 1985). Britain was the seat of the First Industrial Revolution and had technological hegemony. Of the 327 important inventions discovered between 1750 and 1850, Britain was responsible for 38 per cent, France for 24 per cent, Germany for 12 per cent, and the United States for 16 per cent (Streit, 1949).

The status of Britain as a world imperial power and the first industrial nation provided the country with the opportunity and the capacity to engage in various forms of international business at an early stage. Exports of portfolio, migratory, merchant and financial capital from the United Kingdom date back to the late sixteenth century (Houston and Dunning, 1976). These early overseas investments which entailed some degree of managerial control were directed mainly towards the primary sector (i.e. mines, plantations, etc.), and services such as railways, utilities, banking, trade and commerce.

One of the important consequences of the First Industrial Revolution that started with England was the development of processing industries. As a result, domestic industry demand for new sources of energy, industrial raw materials and minerals was created, and the country became a major consumer of particular commodities and foodstuffs for its increasingly urbanized population with high real incomes. As the United Kingdom is a country scarce in natural resources, British factories needed to import raw materials and intermediate products financed by the export of finished manufactured products. Trade became the handmaiden of domestic economic growth, but this was often complemented by an outflow of tangible and intangible assets in the form of capital, technology and management to extract the minerals from abroad and provide the raw materials and foodstuffs for the needs of its domestic industries and consumers. With the development of a highly sophisticated international capital market, some of these assets were transferred abroad through the market in the form of foreign portfolio investments and some were transferred through firms in the form of FDI. Both forms of foreign investment were financed from a balance-of-payments surplus accumulated from the growth of Britain’s industrial exports (Dunning, 1985).

Although FDI was often the preferred route over spot-market transactions or long-term contracts to obtain primary products as a means to minimize the risks of supply
disruptions and price increases and to ensure product quality, the amount of FDI actually undertaken in absolute terms remained very small for most of the nineteenth century and also in relation to other kinds of international capital movements. As the economic activities abroad financed by FDI were complementary with, rather than competitive to, the domestic activities of British MNCs and were directed in large volumes to the Commonwealth countries (Chandler, 1986), the pattern of British FDI that developed was not dissimilar to that of its trade and could be explained by the neoclassical Heckscher—Ohlin theory of comparative advantage.

The United Kingdom was one of the pioneering home countries of MNCs, and dominated the process of MNC expansion prior to the Second World War. The country accounted for 46 per cent and 40 per cent of the global stock of direct investment abroad in 1914 and 1938, respectively (Dunning, 1983), and was responsible for the highest number of overseas FDI operations (Wilkins, 1988b). This chapter is devoted to exploring the emergence and evolution of British MNCs, and the changing determinants of British FDI as it affected the sectoral and geographical patterns of British FDI over time. The historical excursion is conducted in three time frames: the period prior to 1914, the inter-war period and the period since the Second World War.

The emergence of British MNCs in the period prior to 1914

There were four types of British enterprises that operated overseas in the period prior to 1914. First and foremost were the free-standing companies (Wilkins, 1986a, 1988a). There were literally thousands of free-standing companies, many more than any other type of British enterprise in the period prior to 1914. These companies which did not undertake any prior production in the United Kingdom before investing abroad were registered in the United Kingdom and floated on the London capital market primarily for the purpose of undertaking business exclusively or mainly abroad (Jones, 1996). The second type consisted of companies that developed and established their business pre-eminently in Britain and then expanded overseas through FDI, thus extending their existing domestic operations (Jones, 1986a). This type of firm, which was the precursor of the ‘classic’ or modern MNC, started to evolve in the 1860s and 1870s, strongly influenced by the rapid growth of international trade and the technological, organizational and institutional developments of the second half of the nineteenth century. The third type was the migrating multinational (Jones, 1986a). This was a company whose headquarters was based originally in one foreign country, invested in Britain and then evolved to become a British-headquartered MNC over time. Such was the case of Borax Consolidated Ltd (Travis and Cocks, 1984) and British-American Tobacco (BAT) (Jones, 1986a). The fourth variant was that of a firm established abroad with no registration in the United Kingdom but nevertheless attracted both British capital (sometimes in the form of large overseas deposits) and British management, the latter often provided by immigrants or expatriates. This type of firm can be distinguished from a free-standing company by the absence of legal headquarters in the United Kingdom (Wilkins, 1988b).

Some overseas-registered companies seem to have been established abroad by British
trading companies which acted as the centre of an investment portfolio and provided management and finance. These types of firms, which were labelled as 'investment groups' by Chapman (1985), typically displayed opportunistic patterns of portfolio diversification in their overseas operations.

The foundation of the free-standing companies was based on the profitable exploitation of abundant and relatively cheap capital in Great Britain in lucrative investment opportunities abroad. Free-standing firms were the institutional device to maintain control over the capital transferred (Wilkins, 1988b). Although each company had a board of directors in Britain charged with the management of the business overseas, the main business was conducted overseas. The free-standing companies established either invested abroad directly or served as a holding company through its ownership of the securities of a locally incorporated company. Each free-standing company that was established primarily to conduct foreign business in a single foreign country usually also operated in a single economic activity. Collectively, the activities abroad of these companies spanned the whole economic spectrum from the primary sector, manufacturing and services (including public utilities, transportation and banking services) (Wilkins, 1988b). The enterprises were both local market oriented and supply oriented in providing for the needs of Britain or, less often, third countries.

Apart from the free-standing companies, the emergence of the modern British MNC starting in the 1860s became responsible increasingly for British FDI. These companies which similarly invested abroad in pursuit of more markets and/or sources of supply comprised manufacturing companies as well as producers of services (trade, shipping, insurance, accounting, engineering and so forth) (Wilkins, 1988b).

**Resource-based FDI prior to 1914**

As in the case of the United States, the majority of British FDI in the period prior to 1914 were comprised largely of supply-oriented resource-based investments and associated investments in services (trading, distribution and transportation) geared primarily to support both the expansion of the domestic processing industries whose growth was spurred by the First Industrial Revolution, and the needs of domestic consumers. These investments in basic inputs and other agricultural products were apparently conducted more commonly by free-standing companies, and being that the United Kingdom was resource scarce, there were often no comparable domestic activities (Wilkins, 1988b). Apart from the free-standing companies, these primary sector investments were also conducted by British companies in manufacturing, petroleum and trading that extended their investment interests outside the territorial borders of the United Kingdom through backward vertical integration into the establishment or acquisition of plantations, farms and mines in foreign countries. Some of the best known examples are discussed below.

The investments were often vertically integrated to cover extraction/cultivation, processing and supporting service sector investments in finance, insurance, transport and distribution that facilitated international trade in raw materials and foodstuffs (Jones, 1996). Such early evidence of the presence of an international hierarchical organization served to protect companies from vulnerabilities to sudden price increases and/or supply
interruptions (Vernon, 1983). This can be seen as the rationale behind the many resource-seeking overseas investments of resource-based companies such as British Petroleum, Shell, Burmah Oil, Rio Tinto Zinc and the Charter Consolidated Company over more than a century (Dunning and Archer, 1987). Such imperfections in the primary product markets in the nineteenth and early twentieth centuries also explain the motivations of several resource-based British manufacturing companies to internalize the markets for their required natural resources.

The location of resource-based investments by British companies was determined by the presence of the required natural resources in abundance, but other variables such as exploration and extraction costs, land rents, transport costs and host government attitudes towards foreign ownership of natural resources were also important considerations (Dunning and Archer, 1987). In general, although the investments were spread widely in resource-rich developing countries, the United States and Latin America, there was a marked concentration in the British colonies and Commonwealth countries as a result of Imperial policies and the position of Great Britain as head of British empire (Wilkins, 1988b).

The demand for minerals by domestic industry and the position of the United Kingdom as the centre of the international mining industry explain both the early emergence of the free-standing British mining MNCs, and the massive growth of their FDI in mining. Although the hundreds of British free-standing mining companies were usually small, the St John d’el Rey Mining Company and Rio Tinto Zinc Company were exceptions. Six British-owned companies were exploiting Brazilian goldfields by the 1830s, a process that began in the 1820s. By the middle of the nineteenth century there were a significant number of direct investments in minerals in various European countries (Jones, 1996). For example, there were at least 174 British mining companies that owned or controlled copper-pyrites, iron, lead and silver mines in Spain between 1851 and 1913. French, German and British interests dominated the Spanish minerals industry (Harvey and Taylor, 1987). There were another 659 British-registered companies in mining ventures in the United States between 1880 and 1904 (Wilkins, 1989). Foreign-owned (mainly British) companies accounted for more than 25 per cent of the copper mining output of the United States by 1889. South Africa was also an important host country after 1913, with the discovery of goldfields in that country. Over 20 per cent of the British firms in mining, and 40 per cent of the capital invested was in the southern African gold industry (Harvey and Press, 1990).

The position of the United Kingdom as the world’s largest producer of tin, copper and lead until around 1850 provided its firms with mining skills and technology which were exploited abroad. Thus, although by 1900 the country was no longer an important producer of any mineral except coal, the success of its overseas mining activities in the late nineteenth century and afterwards was enhanced by the accumulated mining skills and technology from the old mining region of Cornwall (Jones, 1996).

Apart from minerals, another important area of supply-oriented investments by the United Kingdom was petroleum. Investments in this industry dwarfed all other resource-based investments (Dunning, 1992). The Royal Dutch Shell Group first engaged in FDI in 1890 and had invested in oilfields, refineries and distribution in the United States,
Venezuela, Dutch East Indies, Russia and Europe by 1914 (Jones, 1996). British Petroleum began as one of dozens of British free-standing companies established in 1901 to search for oil in various parts of the world. Unlike Shell, the company held a much smaller share of the world oil market, and its competitive position rested on the control of the rich Iranian oil reserves (Bamberg, 1994).

The establishment of rubber plantations overseas by British companies was stimulated by the worldwide surge in demand for rubber from the early 1900s, the high prices fetched by that commodity before the First World War, and the supply constraints subsequent to the various restrictive cartel agreements that came into force in the inter-war years. European-owned plantation companies were established throughout the colonial possessions in South East Asia, which by the First World War accounted for two-thirds of the total world output of rubber (Jones, 1996). The investments in plantation rubber overseas was conducted by both free-standing companies and classic MNCs. Among the latter was the British rubber and tyre manufacturing company, Dunlop, which was engaged in backward vertical integration in rubber plantation through the acquisition of rubber estates in Ceylon and Malaya before the First World War (Jones, 1984a). By 1917, Dunlop owned about 60,000 acres of land devoted to rubber plantation in the Malay peninsula and 2,000 acres in Ceylon (Jones, 1986b).

There were other instances of backward vertical integration by British manufacturing companies in the other resource-based industries. Among the most notable were the investments in the 1900s by Lever Brothers—Unilever’s British predecessor—which began to acquire palm oil and copra plantations overseas in the Solomon Isles, the Belgian Congo and Nigeria in order to guarantee supplies for their soap manufacturing business in the face of a predicted shortage of vegetable oils (Fieldhouse, 1978; Wilson, 1954). There is also Cadbury’s investments in cocoa plantations in the Gold Coast and Trinidad; Imperial Tobacco’s activities in tobacco leaf plantations in Nyasaland; Tate & Lyle’s investments in sugar estates in Jamaica, Trinidad, Belize, Zambia and Zimbabwe; and Turner and Newall’s investments in asbestos mines in Rhodesia and South Africa, among other numerous examples (Dunning, 1992; Dunning and Archer, 1987). In some cases the cross-border vertical integration was undertaken by a trading firm: this was the case for example with Booker McConnell, a trading company which bought sugar plantations in British Guyana in the 1830s, and accounted for 70 per cent of Guyana’s sugar output by the early 1950s (Chalmin, 1990).

There were other primary sector-based activities that engaged British MNCs in foreign countries in the late nineteenth century. However, unlike their investments in minerals, oil and industrial raw materials to serve the needs of rapidly growing domestic industries, some of the agriculturally based overseas investments often arose from entrepreneurial perceptions of profitable opportunities. This was the case with cattle raising which attracted considerable FDI by many British free-standing companies. Attracted by the very high profits earned by indigenous cattle firms in the United States, these companies acquired large acreages of cattle ranges in Texas, Wyoming, Colorado and New Mexico (Lewis, 1938). There were some 41 acquisitions by British companies of cattle ranges in the American West between 1879 and 1889 representing over £10 million of investment, but most of the ranches reverted to American ownership by 1914 (Wilkins, 1989). No
less important were the large land companies established by British companies in Latin America, especially in Argentina from the 1880s, for the purpose of raising livestock. While some of these were investments by free-standing companies, other investments were undertaken by large integrated enterprises, e.g. Liebig’s Extract of Meat Company which owned vast cattle estates in Argentina and Uruguay by 1913 (Stopford, 1974).

**Services sector FDI prior to 1914**

The most prominent of British MNCs in services prior to 1914 were the trading companies (Yonekawa and Yoshihara, 1987). As an island economy with scarce natural resources, Britain has always been dependent on international trade and hence the emergence of well-developed and numerous British trading companies with important roles in the development of British business abroad. As mentioned, this could take the form of trading companies acting as the core of British-based investment groups established before 1914 (Chapman, 1985). There were also British individuals involved in shipping as part of free-standing companies (Porter, 1986), and consulting and managing engineers such as John Taylor & Sons that managed free-standing mining companies around the world (Harvey and Taylor, 1987). There was also the expansion abroad of British banks which formed a significant aspect of British business overseas. The lack of British ‘universal’ banks (Cottrell, 1991) precluded the possibility of the British banking sector to assist directly in the expansion of British business abroad. Instead, it was often the investment group with a trading company at its core that fulfilled a more significant and major role (Chapman, 1985). Many of the British international and imperial banks began as free-standing companies, of which the Imperial Bank of Persia is an example (Jones, 1986c).

**Manufacturing sector FDI prior to 1914**

Between 1870 and 1900, resource-based extractive investments grew more slowly as a new type of British industry more closely related to new consumer needs began to emerge. International production was confined to a limited number of companies before 1880 (Jones, 1996), and some of these early forays by British MNCs in the manufacturing sector were undertaken by free-standing firms. There were thousands of British free-standing firms active in the United States in the late nineteenth century, and there were more than 100 British parent companies that built or acquired some 255 manufacturing plants in the United States before 1914. Most of the British free-standing firms and approximately one-third of the factories established by the classic MNCs proved unsuccessful, short-lived or were no longer British owned by 1914 (Wilkins, 1989).

Over time, the direct capital exports of the United Kingdom consisted more of the establishment of foreign subsidiaries and branches by enterprises already operating in their home countries—essentially the kind of foreign activity of modern classic MNCs which mainly predominates in modern time. The managerial and technological competences developed in their home countries gave firms the ability to initiate and
sustain their international production activities. Unlike the earlier resource-based investments which were directed primarily to resource-rich developing countries in the colonies and the Commonwealth, the emergent import substituting manufacturing investments prior to the First World War displayed a preference for high-income markets, but with some bias towards countries belonging to the British empire owing to political and other psychic ties. This shift in the pattern of MNC activity developed rapidly around 1875, and became established firmly in 1914 (Dunning, 1983).

At least 15 major British MNCs emerged by 1914, of which 14 were manufacturing companies. These were Babcock & Wilcox (industrial machinery), British American Tobacco (tobacco), Bryant & May (matches), J. & P. Coats (cotton thread), Courtaulds (rayon), Dunlop (rubber tyres), English Sewing Cotton (cotton thread), Gramophone (records), Lever Brothers (soap), Nobel Explosives (chemicals), Pilkington Brothers (glass), Reckitt & Sons (household products), Royal Dutch Shell (oil), Vickers (armaments) and Burroughs Wellcome & Co. (pharmaceuticals) (Dunning and Archer, 1987). All of these major pioneering British MNCs that emerged pre-1914 held strong oligopolistic positions in their domestic markets, and several were members of international cartels or market-sharing agreements (examples included Babcock & Wilcox, British American Tobacco, Bryant & May, Gramophone and Nobel Explosives). These agreements both allowed the participants favoured access to certain markets (usually the markets of the British empire and/or Europe) and provided protection from competition from other firms. A further advantage of some of these pioneering British MNCs was their privileged access to essential inputs or raw materials as mentioned earlier in this chapter (the case with Dunlop, Lever Brothers and Royal Dutch Shell, for example).

Perhaps the most outstanding feature of the ownership advantages of the major pioneering British MNCs was the role of individual entrepreneurs or a small group of entrepreneurs that were often also the owner-managers in determining the course of both domestic and overseas expansion of their respective companies. This included Sir James Kemnal (Babcock & Wilcox), J.B. Duke (British American Tobacco), Gilbert Bartholomew and George W. Paton (Bryant & May), D.E. Philippi (J. P. Coats), Henry Tetley (Courtaulds), du Cros family (Dunlop), A. Dewhurst (English Sewing Cotton), Fred Gaisberg (Gramophone), William Lever (Lever Brothers), Thomas Johnson, Lord Melchett and Sir H.D. McGowan (Nobel Explosives), Pilkington family (Pilkington Brothers), T.R. Ferens (Reckitt & Sons), Marcus Samuel and Henri Deterding (Shell), Basil Zaharoff (Vickers) and Henry Wellcome (Wellcome) (Archer, 1990).

The concentration of domestic and international production of a significant number of British manufacturing MNCs in branded consumer goods (Dicken, 1992; Chandler, 1986) was a reflection to a large extent of the comparative advantages of the United Kingdom in labour intensive, capital neutral and human capital-scarce products (Crafts and Thomas, 1986) and, in some cases, the technological hegemony of the United Kingdom in the industries associated with the First Industrial Revolution. Many of these companies were in the textiles or textiles-related industries that had grown first and foremost in the United Kingdom and had begun to invest in a major way in the United States, Canada, France, Germany and Russia (Wilkins, 1989). The ownership advantages of British
MNCs in consumer goods industries derived generally from their ability to supply differentiated and high-quality consumer products and their control of selling outlets (Dunning and Archer, 1987).

Only to a limited extent did British manufacturing MNCs emerge from the more technology intensive and knowledge intensive industries spurred by the Second Industrial Revolution in the second half of the nineteenth century. This was the case with Babcock & Wilcox (industrial machinery), Nobel Explosives (chemicals), Royal Dutch Shell (oil), Vickers (armaments) and Burroughs Wellcome (pharmaceuticals). The Second Industrial Revolution witnessed further organizational and technical innovations (such as electricity and the internal combustion engine, the inter-changeability of parts and the introduction of new continuous processing machinery) that not only enhanced the capacity of firms to create or acquire proprietary rights and to produce and distribute at a much larger scale of output through mass production and mass distribution, but also provided firms with opportunities to become multi-product, multinational and multi-regional entities (Cantwell, 1989b). The implications of the later advances were truly transcontinental. The modern industrial enterprise grew both by horizontal and vertical integration (Chandler, 1980). Unlike the technical and organizational advances of the First Industrial Revolution which had a greater effect on the development of processing industries, those of the Second Industrial Revolution of the mid- and late nineteenth centuries encouraged the development of fabricating industries such as motor vehicles, office machinery, electrical goods, synthetic chemicals and others.

As the United Kingdom had already surrendered much of its earlier lead by the last quarter of that century, it missed out on many of the more recent developments brought by the Second Industrial Revolution and hence the development of the more modern growth industries was influenced heavily by American and, to a lesser extent, German innovations and practices (Dunning and Archer, 1987). Indeed, by comparison to the period between 1750 and 1850 the share of the United States in the important inventions discovered in the second half of the nineteenth century doubled to 32 per cent and the share of Germany increased significantly from 12 to 21 per cent, while the shares of Britain and France declined substantially from 38 per cent to 16 per cent and from 24 per cent to 19 per cent, respectively (Streit, 1949).

In addition, an examination of the industrial distribution of the 200 largest manufacturing firms in selected countries at the time of the First World War showed that some 50 per cent of American firms were in the newer or mainly producer goods industries compared with only 28 per cent of British firms. The respective shares for American and British firms in the older or mainly consumer goods industries were 50 per cent and 72 per cent, respectively (Chandler, 1980). The failure of the United Kingdom to catch up in the more modern fabricating industries had important implications for both their domestic and international production. Several of the British MNCs whose competitiveness was based on the more recently developed products and/or processes of the Second Industrial Revolution, although displaying some innovatory strength based on long experience, cannot be considered to have advanced technology. The crucible steel makers are an excellent case in point (Tweedale, 1987). In fact, many were reliant on technology and knowledge acquired from overseas, mainly but not exclusively from the
United States. Among these were Babcock & Wilcox (industrial machinery), Gramophone (records), Nobel Explosives (chemicals) and Wellcome (pharmaceuticals) (Dunning and Archer, 1987), and also Courtaulds (rayon), Burroughs Wellcome (pharmaceuticals), Brunner, Mond (alkalies), and Marconi (radio installations). Thus, British business innovation in the modern industries has been promoted by foreigners rather than by those in mainstream Britain (Wilkins, 1988b). Furthermore, for some of the companies that made producer goods (Bradford Dyers, United Alkali, H. & G. Bullock) the home industries were often related to textiles.

The lacuna that developed in the domestic economy as a result of the inability of domestic firms to emerge in the more modern growth industries could only be filled through imports and inward FDI by foreign based MNCs at a later stage. The balance of evidence suggests that the new product and process innovations introduced through inward FDI has enabled foreign MNCs to steer the domestic economic structure of the United Kingdom consistently towards the technologically more advanced and internationally oriented sectors (Dunning, 1958, 1985).

The determinants of international production by British manufacturing MNCs in both the traditional and modern industries was the inability of important foreign markets to be supplied, or supplied as cheaply, through exports (Dunning, 1985). In some cases, the initial decision to go abroad before 1914 rested on more favourable production costs in the foreign location, the provision of host government incentives or patent legislation but more often than not import restrictions imposed by the host governments was the key element that rendered exports uncompetitive in foreign markets (Coram, 1967; Buckley and Roberts, 1982). After 1880, imported manufactured products faced higher tariffs in the United States, Canada and most European countries (Jones, 1996). Indeed, high foreign tariffs were the single most important factor leading to international production by British market-seeking FDI before 1914 (Archer, 1986; Jones, 1986a). In addition, high transport costs encouraged foreign production by Babcock & Wilcox, Gramophone and Nobel Explosives whose products were high volume/low value or dangerous to export over long distances (Nobel). Tariffs and transport costs often combined to prompt British manufacturers to establish overseas subsidiaries, particularly in countries where there was strong or emerging indigenous competition (Dunning and Archer, 1987).

In light of these high transfer costs, three options were considered by exporting firms: the first was the complete abandonment of the export market; the second was the licensing of intangible assets to foreign firms; and the third was international production in the export market (Dunning, 1985). All of these routes were chosen by different companies, but it was the last route which enabled the emergence of some of the more enduring MNCs (Stopford, 1974). Where the exporting firms decided to maintain their business in foreign markets, FDI was often chosen over licensing as a mode of entry in foreign markets because of the expectation of capturing a fuller economic rent by exerting greater control over their proprietary rights (Dunning, 1985). Indeed, few British manufacturing companies seem to have chosen the licensing option before the Second World War due to the lack of enforceable patent legislation, the difficulties of monitoring the licensee’s business or the early stages of development of foreign markets which necessitated the total control over operations from the start. Other factors that contributed
to the internalization of firms producing high-quality consumer goods were the lack of licensees with the necessary capabilities and trust, while for those firms in high technology industries it was the inappropriate use of the market for the transfer of knowledge that was non-codifiable, idiosyncratic or tacit (Dunning and Archer, 1987).

All these factors compelled several British manufacturing firms, many of whose trade had been with these countries, to move the whole or part of their plants to these countries in order to maintain and expand their business (Mason, 1920). In some cases, the manufacturing firms had already established foreign sales branches in the export markets to either promote their exports of differentiated consumer products in foreign countries with high per capita incomes based on marketing expertise developed in the home market or to ensure and stabilize the demand for producer goods where firms typically incur large sunk costs (Dunning and Archer, 1987). These overseas sales branches have been rendered ineffective in the face of trade barriers and/or where there was strong or emerging indigenous competition. The product cycle model is a useful framework to explain the shift of location of production from the home country in the innovative new stage (or innovation-based oligopoly) to other relatively advanced countries and previous export markets in the maturing product stage (or mature oligopoly) in the presence of high transfer costs in the form of tariffs or threat of new competition. While these served as powerful ‘galvanizing forces’ to international production (Vernon, 1966), international production also provided the opportunity for firms to have a direct presence in the market and to cater to the specific and special needs of local customers (Dunning, 1992).

Another contributory factor that prompted the shift from exports to international production by British manufacturing firms particularly those in the more modern fabricating industries was the need to sustain a process of competition between firms in oligopolistic industries. In such cases, the motive for FDI was not determined by profits but by the need to protect the firm’s overall competitive position through precluding rivals from gaining a foothold in a foreign market or through engaging in cross investments. Examples abound showing the influence of the behaviour, or anticipated behaviour, of competitor firms as a determinant of international production, including the establishment of Dunlop’s plant in Japan in 1899 as a preemptive move against American tyre companies as well as its loss-making plant in France to combat the firm’s rival firm, Michelin; Royal Dutch Shell’s investment in the United States in 1912; and Pilkington’s investments in Canada in 1913, among other examples (Jones, 1986b; Dunning and Archer, 1987).

**The growth of British MNCs in the inter-war years**

The inter-war years saw the collapse of international capital markets in the late 1920s and early 1930s, and was an era marked by political instability, economic depression and market fragmentation. At least 17 new major firms emerged to become MNCs between 1915 and 1939 (Dunning and Archer, 1987) in an atmosphere where industrial concentration, rationalization and cartelization became the norm. The competitive advantages of British MNCs during this period were very similar to those of the previous
era which derived from asset ownership advantages, despite the stark difference in the underlying economic and political environment in which FDI was undertaken in the two eras. In addition, the newer MNCs also tended to hold a similar prominent position in the domestic market, to have been established for a long time, and to be led by owner/entrepreneurs with similar drives and visions so important in the determination of the growth path of their companies. Thus, unlike in the case of the American companies (Chandler, 1980), managerial hierarchies in British companies during the inter-war period failed to develop and only a small proportion of British companies had established a multi-divisional structure even by 1950 (Channon, 1973).

While British FDI in the manufacturing sector was becoming increasingly significant with a share of some 25 per cent of outward FDI stock in 1938 compared to 15 per cent in 1914 (Dunning, 1983), international production by British manufacturers remained oriented towards the mature, relatively low technology sectors whose competitiveness emanated from the high income and large size of the British market. These were firms of large size and established technological advantages that derive strengths from product differentiation, quality, and marketing and managerial skills and experience. These characteristics favoured the continuing pre-eminent role of consumer goods firms as the new British MNCs during the inter-war years. Among these were the confectionery firms Cadbury, Rowntree, Pascall and Fry, as well as Peek Frean (biscuits), Cantrell & Cochrane (soft drinks), Distillers (alcoholic drink) and Yardley (soap) (Corley, 1989).

Several of the new British MNCs that emerged in the higher technology industries, including Coates Brothers and Metal Box (metal products) continued to depend greatly on new technological developments from the United States. The slow adjustment of British firms to the more rapid growth opportunities offered by the modern industries was regarded to be a function of the peculiar nature of the British economy which posed a host of institutional barriers that prevented industrial restructuring towards the growth-oriented sectors, including investments in innovation that would sustain those industries. Such barriers included, among others, the lack of provision for commercial studies and for any kind of technical education for managers and industrial staff (Ashworth, 1960; Chandler, 1980). Other contributory factors were the risk averse strategy of British firms which continued to emphasize industries and sectors in which past successes had been based, the presence of a protected home market and the continuing preferential market access in the empire and Commonwealth markets during the 1940s and 1950s (Dunning and Archer, 1987). As the technological leading position of the United States strengthened in the inter-war years, the ratio of its outward FDI stake to its inward FDI stake rose from 1:8 in 1914 to 4:1 in 1938, while that of the United Kingdom declined from 33:1 to 15:1 over the same period (Dunning, 1983).

The prevailing economic and political climate of the inter-war period served to strengthen the protectionist stance of host country governments and, as a result, import restrictions continued to be the main locational factor determining MNC expansion during this period (Corley, 1989; Jones, 1984b; Nicholas, 1982; Chandler, 1980; Stopford, 1974). However, the transportation difficulties that British exporters faced in the years between 1914 and 1918 was also a contributory factor (Dunning and Archer, 1987).
With the growth of industrial concentration, rationalization and cartelization in the inter-war years, the operating decisions of most large British MNCs, including their decisions to engage in international production, were taken in light of intense international oligopolistic rivalry. The actions or anticipated actions of their major international competitors was therefore key for both new and existing MNCs such as the resource-based companies of Shell and Imperial Tobacco, the high technology manufacturers such as APOC, Pilkington Brothers, Courtaulds, Dunlop, and George Kent and even for some manufacturers of consumer products such as the confectionery companies, Cadbury and Rowntree, that previously relied on exports to serve foreign markets prior to 1914. These companies began to establish factories in Australia, Canada, New Zealand, South Africa and Ireland in the interwar years (Corley, 1989; Jones, 1986a). Such atmosphere of intense rivalry somewhat abated during the 1940s and 1950s when British companies with neither the resources nor the competitive strengths became less generally influenced in their FDI decisions by the behaviour of their competitors, with the exception perhaps of Pilkington Brothers, Unilever, British Petroleum and Shell (Dunning and Archer, 1987).

The preference of British FDI in the empire and Commonwealth was reinforced during the inter-war years. Apart from having political stability, large and/or growing markets, and a transportation and communications infrastructure, these markets were favoured by psychic proximity, traditional ties and indirect enforcement (Svedberg, 1981). This led many British companies to both develop important trading links with these countries and to regard these markets, particularly the White Dominions and India, as a natural extension of their domestic markets in much the same way that Canada had been for American MNCs.

The evolution of British MNCs since the Second World War

As countries recovered from the effects of the Second World War, the international and economic and political environment became increasingly favourable to the expansion of FDI. The early post-war period was associated with the surge in technological developments, the further improvement in international communications and stable exchange rates. The stability, growth and full employment of the first 20 years of the post-war period was consistent with the ‘Golden Age of Capitalism’ (Kitson and Michie, 1995). It was also the period most closely associated with the peak of United States hegemony. As a result, the ratio of the outward FDI stake to the inward FDI stake of the United States rose further from 4:1 in 1938 to 6:1 in 1971, while that of the United Kingdom declined further from 15:1 to 8:1 over the same period. By 1980, the respective ratios both fell to 3.2:1 and 1.7:1 (Dunning, 1983). Just as the fall of the ratio in the case of the United Kingdom was a reflection of the long-term decline in its technological leadership since the First Industrial Revolution, the fall in the ratio of the United States beginning in the 1970s was a reflection of the gradual decline in that country’s industrial hegemony in favour of several European countries (Germany and Sweden, in particular) and Japan.
At least another 26 new major firms emerged to become British MNCs between 1940 and 1959 (Dunning and Archer, 1987). Although their emergence has contributed to the continuing increase in the absolute value of British FDI, the share of the United Kingdom in world FDI stake has declined considerably. Indeed, the baton of leadership in world FDI passed from the United Kingdom to the United States in the period since the Second World War. The new British MNCs that emerged in the period since the Second World War displayed characteristics that were essentially more of the same as that of the pioneering British MNCs that emerged prior to 1914 and the inter-war period. British MNCs still did not feature prominently in the more modern and growth-oriented fabricating industries, a reflection in part of the country’s adherence to imperial ties established in the past. Indeed, 61 per cent of the net foreign assets owned by British MNCs in 1960 in industries outside oil, banking and insurance was directed towards the Commonwealth countries (Dunning, 1985). Although the imperial legacy of the United Kingdom still bears some influence in the more recent geographical pattern of British FDI, there has been a re-direction in the geographical destination of British FDI since 1960 with a greater focus placed on the United States and Western Europe. An increasing proportion of British FDI was directed towards the United States even in light of intense competitive pressures and in the original six member states of the European Economic Community (EC) as recovery and expansion proceeded and as closer regional economic integration progressed, culminating in the accession of the country to the EC in 1973.15 Thus, there has been an increasing propensity for British MNCs since the 1960s to invest in countries with higher per capita incomes and larger markets than itself (Stopford, 1976). It is also a reflection of the objective of several British companies to establish a presence in the major centres of technological excellence in light of the growth of global competition (Cantwell, 1989a).

Continuing structural shifts in the pattern of outward FDI resulted in the dominance of the manufacturing sector in the period since the Second World War. The decline of supply-oriented FDI by British MNCs since 1960 can be seen as arising from the increased efficiency of commodity and futures markets and, more significantly, the increasingly hostile stance by host country governments in the resource-rich developing countries to the foreign ownership and exploitation of strategic resources. This was evident in the spate of nationalization and expropriation of foreign property in resource-rich developing countries starting from the 1960s which reached a peak in the mid–1970s (UNCTC, 1988). Nevertheless, British mining investments abroad continued at an average rate, and some mining investments by British MNCs in non-ferrous metals and petroleum even grew rapidly. The share of the manufacturing sector in the total FDI stock of the United Kingdom (and the United States) increased further to about 35 per cent in 1960 from a share of 25 per cent in 1938 (Dunning, 1983). Such 35 per cent share of manufacturing in total outward FDI stock of the United Kingdom was maintained until the early 1990s.

The determinants of international production by British MNCs in the more modern industries in the period since Second World War appear to be categorically distinct from those in the more traditional industries. For those in the more modern industries, the establishment of local subsidiaries in certain key markets during the 1970s and 1980s was
an integral part of the pursuit of oligopolistic strategies on a global scale. The concepts of
‘exchange of threats’ and ‘follow the leader’ associated with intra-industry production in
oligopolistic competition described by Graham (1975, 1978, 1985) and Knickerbocker
(1973) respectively appear to be highly relevant in explaining the international
production patterns of Beecham, British Petroleum, Imperial Chemical Industries,
Pilkington Brothers, Plessey, Unilever, Redland, Allied Colloids and Tace in the period
since the Second World War. The cross-penetration of national markets in the advanced
industrialized nations by MNCs is linked to the convergence in the structure of
production and taste patterns in these countries and facilitated by the economies of large-
scale production (Dunning and Norman, 1985).

It is also these MNCs that have been pursuing more rationalized or efficiency-seeking
investments since the 1970s associated with an increasing amount of intra-firm trade and
product and process specialization. These investments were motivated by the need to
capture the gains from the economies of specialization and integration through taking
advantage of differences in factor endowments and costs across different countries as
well as to maintain international competitiveness by securing a presence in the major
growth markets of the world. For these MNCs that have a higher degree and extent of
multinationality, their asset ownership advantages (Oa) are complemented by ownership
advantages that arise from multinationality (Ot) leading to transaction cost reduction or
the attainment of transaction benefits in international production. It is the pursuit of the
latter form of ownership advantages that has provided the incentive for MNCs to both
widen and deepen their networks of international production.

On the other hand, for the British MNCs in traditional consumer goods industries that
neither engaged in rationalized production and investment nor sought to benefit from
transaction cost advantages, their incentives to internationalize in the period since the
Second World War were not dissimilar to that in the earlier periods. These firms
remained keen to exploit their preferences to produce in the markets of the empire and
Commonwealth until the early 1960s when the exporting route became difficult or no
longer practical.

Such dualistic pattern of the international production of British firms is a reflection of
the domestic economic structure of the United Kingdom which although geared towards
the industries of high and medium technology is propelled by the investments of foreign-
based MNCs. The more traditional low technology and consumer goods manufacturing
sectors on the other hand are where the indigenous strengths of British firms lie which
explain the dominant role of these sectors in the foreign activities of British MNCs.
Inward and outward FDI in and from the United Kingdom has, therefore, been directed
towards different industries. Nowhere is this more evident than in the report prepared by
Reddaway et al. (1968), which showed that, following a historical trend, 71 per cent of
the net foreign assets owned by the leading British manufacturing MNCs in 1964 were in
the less technology intensive sectors of food, drink and tobacco, household products,
paper, metal products, building materials and textiles, while 29 per cent were in the more
technology intensive sectors of chemicals, engineering, electronics and motor vehicles.
By contrast, some 67 per cent of the net assets of foreign (mainly American) firms in the
United Kingdom in 1965 were in the more technology intensive sectors and only 33 per
cent were in less technology intensive sectors (Dunning, 1985).

This also helps to explain the different patterns of exports of the United Kingdom and that of the international production of British MNCs. The industrial structure of British manufactured exports in the years between 1965, 1970 and 1975 continued to differ sharply from that of its manufacturing FDI but for an entirely different reason than that pertaining to the end of the nineteenth century when international production displayed a higher technological intensity compared to that of exports. A study conducted by Clegg (1987) indicated that capital intensity and the skill level of managerial manpower exerted significant positive influences on British FDI in manufacturing between 1965 and 1975, while the skill level of production workers exerted a highly significant negative influence. This contrasts sharply in the case of British exports of manufacturing in which technological intensity exerted a highly significant positive influence.

Britain’s present day comparative advantage which rests on the production of labour intensive, capital neutral and human capital-scarce products has remained essentially stable since 1870 (Crafts and Thomas, 1986). Firms in a broad range of industries continue to be more concerned with the production of low-cost standardized goods than in high-quality, technology intensive niche products (Porter, 1990). The employment pattern developed on this basis may have even become further entrenched during the 1990s (Nolan and Harvie, 1995).

Until the 1970s foreign affiliates established by British MNCs were largely truncated replicas of their parent companies and MNCs considered their network of foreign affiliates as a federated group of firms, each of which was designed to produce and sell products for the particular national markets in which it operated (Dunning and Archer, 1987). Although several British MNCs since the 1970s and 1980s have become increasingly aware of the attainment of transaction cost reducing advantages (Ot) arising from their geographical diversification, the number of British companies that have attained this in a significant way through the rationalization of their production and markets across national frontiers has remained essentially confined to British MNCs in internationally oriented high technology industries. Among the more globalized British firms are Imperial Chemical Industries, Glaxo, Unilever and Shell. These companies have adopted a transnational strategy in at least some of their value-chain activities, including R&D (Lane, 1998).

Some evidence of industrial upgrading in the pattern of British FDI in manufacturing may have become evident over the last decade. Products of coal, petroleum, plastics and chemicals; food, drink and tobacco; and electrical machinery accounted for 60 per cent of the total outward FDI stock of the United Kingdom in the manufacturing sector or 22 per cent of their total outward FDI stock in all industries in 1988. By 1997, the most important manufacturing industries for British MNCs were food, drink and tobacco; coal, petroleum, plastics and chemicals; transport equipment; and metals and mechanical engineering. These industries accounted for almost 72 per cent of the total outward FDI stock of the United Kingdom in the manufacturing sector or 27 per cent of their total outward FDI stock in all industries in that year (based on data in UNCTAD, 1999).

From a concentration in the primary sector in the era before 1914, and the growth of manufacturing sector particularly since the Second World War, the relative importance of
the primary, secondary and tertiary sectors in British FDI continues to evolve. The attainment of almost equal shares of the three sectors in the total outward FDI stock of the United Kingdom in the mid–1980s has given way since to another major sectoral shift in the pattern of British FDI. With the increasingly larger share of services in the outward FDI stock of the United Kingdom at the expense of the primary sector, this sector became the dominant sector of activity of British MNCs accounting for 46 per cent of total British outward FDI stock in 1991. Thus, over the course of some 200 years, the dominant sectoral pattern of British FDI has spanned the primary, secondary and tertiary sectors.

Conclusion

This chapter examined the emergence and evolution of British MNCs. The United Kingdom was one of the pioneering home countries of MNCs, and dominated the process of MNC expansion prior to the Second World War. The origins of British MNCs in the period prior to 1914 were seen in four types of enterprises: the free-standing companies, the classic or modern MNCs, the migrating multinationals and the investment groups. These institutions provided the means to profitably exploit abundant and relatively cheap capital in Great Britain in lucrative investment opportunities abroad as well as to maintain control over the capital transferred.

The majority of British FDI in the period prior to 1914 comprised largely supply-oriented resource-based investments and associated investments in services (trading, distribution, transportation, finance and insurance) geared primarily to support both the expansion of the domestic processing industries whose growth was spurred by the First Industrial Revolution, and the needs of domestic consumers. These investments were spread widely in resource-rich developing countries, the United States and Latin America, although there was a marked concentration of British FDI in the British colonies and Commonwealth countries as a result of Imperial policies and the position of the Great Britain as head of the British empire.

Between 1870 and 1900, resource-based extractive investments grew more slowly as a new type of British industry more closely related to new consumer needs began to emerge. Import substituting manufacturing investments abroad by British firms displayed a preference for high-income markets, but with some bias towards countries belonging to the British empire owing to political and other psychic ties. The concentration of both the domestic and international production of a significant number of British manufacturing MNCs in branded consumer goods was a reflection to a large extent of the comparative advantages of the United Kingdom in labour intensive, capital neutral and human capital-scarce products and, in some cases, the technological hegemony of the United Kingdom in the industries associated with the First Industrial Revolution. Such comparative advantages of Great Britain has remained essentially stable to the present time.

The importance of British FDI in manufacturing increased in the period since the Second World War. The share of the sector in the outward stock of British FDI has remained around 35 per cent since 1960. The services sector became the dominant sector
of British FDI since 1991. Thus, over the course of some 200 years, the dominant sectoral pattern of British FDI has shifted from the primary sector in the period prior to 1914, towards the secondary sector for much of the period since the Second World War, and then the tertiary sector since the 1990s.

Notes

1. The extensive British activity abroad in sugar and tea plantations reflected that country’s very high level of sugar and tea consumption (Chalmin, 1990).
2. The free-standing companies attracted not only British capital, but also French, German, Belgian and other foreign investors (Wilkins, 1988b).
3. The different activities of British free-standing companies included, among others, rubber cultivation in Malaya, copper mining in Russia, cattle ranches in the United States, meat packing in Argentina, nitrate mines in Chile, railroads in Brazil, hotels in Egypt and mortgage companies in Australia (Wilkins, 1988b).
4. Although the plantation estates of Cadbury in Trinidad fulfilled a quality-control function, the vast majority of the requirements of the firm for cocoa beans was fulfilled by direct purchases from independent producers in West Africa (Williams, 1931).
5. It has been argued that Wellcome’s failure to continue MNC growth after the First World War can be attributed to the loss of much of Henry Wellcome’s former commercial drive (Archer, 1990).
6. The largest British textile companies were engaged in overseas FDI by 1914. Among numerous other companies were J. & P. Coats which had mills in the United States, Canada and Russia. English Sewing Cotton produced through affiliated companies in the United States, France and Russia. Linen Thread Company had factories in the United States and France. The Fine Cotton Spinners’ & Doublers’ Association acquired around the turn of the century a dominant interest in its most prominent French competitor, La Société Anonyme des Filatures Delebart Mallet Fils. Bradford Dyers had a major plant in the United States and one in Germany. Nairn Linoleum (linoleum is made of jute or burlap and thus can be classified as a textile) had factories in the United States, France and Germany (Wilkins, 1989).
7. Evidence of some technological strength is seen in the study of Nicholas (1982) of 119 British manufacturing firms that undertook international production in the period between 1870 and 1939. His study showed that one half of those firms established foreign plants to exploit a perceived technological advantage.
8. The technology of Courtaulds in synthetic textiles was developed in part outside Britain or with the aid of foreign ideas. Burroughs Wellcome was a company founded by Americans which sold patent medicines and ethical drugs. Brunner, Mond was a firm that was part of a Belgian MNC. It was the Belgian MNC rather than the British counterpart that was the driving force behind the company’s MNC expansion. Marconi was founded by a man with an Italian father and a British mother and although the firm once held technological leadership, the company
suffered rapidly from technological conservatism which threatened its leadership by 1914 (Aitken, 1985).

9 There is little reason to suppose that British companies were influenced by lower production costs abroad in undertaking FDI before 1914. International production seldom occurred in very labour intensive industries, and hence low labour costs abroad were rarely an enticement, except perhaps in a limited number of cases as in the international production activities of Lever Brothers and Courtaulds in the 1900s (Dunning and Archer, 1987). British American Tobacco’s investments in cigarette production in China to take advantage of low-cost labour is another example. With the use of labour intensive rather than capital intensive production techniques, the firm employed thousands of unskilled labourers in China to perform tasks that were already mechanized in the United States (Cochran, 1980).

10 Trade protectionism was a major influence on the rapid growth of British manufacturing FDI after 1880 as the worldwide trend towards free trade went into reverse. The need to raise government revenue to finance the American Civil War (1861–1865) led to a substantial rise in American tariffs. The wartime tariffs were retained after 1865, increased in the 1880s, and then raised by the McKinley Act of 1890 to an average level of 50 per cent on protected commodities. A brief lowering of American tariffs in 1894 was followed three years later by an increase to 57 per cent. Similarly, there was a return to protectionism in Europe after 1880, stimulated by a severe recession in the previous decade, the growth of European nationalism and the emergence of new European nation states such as Germany and Italy. By 1914, the only remaining countries pursuing free trade policies were the United Kingdom, the Netherlands and Denmark (Jones, 1996).

11 This was the case, for example, with the British cotton thread manufacturer, J. & P. Coats. Before the American Civil War, three-quarters of the trade of this firm had been with the United States. A 50 per cent tariff imposed by the United States in 1864 forced the company and other cotton thread producers to engage in production in the United States. By the outbreak of the First World War, British subsidiaries accounted for 80 per cent of cotton thread production in the United States (Wilkins, 1989).

12 Indeed, at the more advanced educational levels, technical and scientific instruction and inquiry remained ‘poor cousins in the family of higher learning’ in the United Kingdom in the 1900s (Murphy, 1973). This was so unlike in the United States where the need for trained managers, production and marketing specialists in the technologically advanced machinery, electrical and chemical industries had been recognized more rapidly and catered for by universities and business schools (Chandler, 1980). It was not until 1947 that the British Institute of Management was formed, and only in the 1960s were the London and Manchester Business Schools founded (Dunning and Archer, 1987).

13 After the First World War protectionism spread. By the early 1920s tariffs in the United States had been raised to their highest ever levels by the Fordney-McCumber tariff. Australia, India and some Latin American countries were among those countries that adopted import substitution industrialization strategies, and tariffs,
import quotas and other trade barriers were imposed on imports to foster the development of infant industries. The Smoot-Hawly Act of June 1930 increased the American tariff level substantially, and other countries followed suit. By the end of the 1930s almost half of the world’s trade was restricted by tariffs (Jones, 1996). Tariffs served to encourage foreign firms to establish local manufacturing in host countries, but also strengthened the bargaining position of national firms in international cartel negotiations (Wurm, 1993).

14 For example, the decision of Courtaulds to manufacture in France was owing to fears that its French counterparts may produce in the United Kingdom to jump the tariff imposed on imported artificial silk in 1925 (Jones, 1986b). The investments of Dunlop in Eire, India and South Africa in 1930 were similarly prompted by oligopolistic considerations (Dunning and Archer, 1987).

15 Tariff and non-tariff trade barriers caused British companies to establish subsidiaries in the EC well before the accession of the United Kingdom to the EC (Dunning and Archer, 1987).
8
The emergence and evolution of multinational corporations from Germany

Introduction

The origins of German MNCs can be traced to the large firms in the chemical, electrical engineering and metal-producing industries that engaged in FDI during the nineteenth century. Even at that time, the basis of their competitiveness stemmed from a concentration in low volume but high value added segments and niches (Porter, 1990), where cost control traditionally ceded place to technological perfection, and where production of standardized goods had been far less dominant than in Great Britain. Indeed, a comparatively high level of R&D intensity describe German firms and MNCs from the beginning (Chandler, 1986).

Although its outward FDI was focused narrowly on Western and Eastern Europe, Germany accounted for around 10 per cent of the global stock of outward FDI by 1914 which made it the fourth-largest home country of FDI after the United Kingdom, the United States and France (Dunning, 1983). The defeat of Germany in the two world wars led to a dramatic decline in German FDI and a broad-based and dynamic growth of German MNCs was not resumed until the 1970s (Bostock and Jones, 1994). This helps to explain the high degree of embeddedness of German firms and MNCs to their home country and the predominant role of exports in their internationalization strategies (Lane, 1998). Although Germany has been the third-largest home country of FDI since 1980, outward FDI has remained a secondary strategy for German firms despite their rapid growth over the last 30 years (Heiduk and Hodges, 1992).

This chapter tells the long and discontinuous history of German MNCs. The historical excursion into the determinants of German FDI and their industrial and geographical patterns is conducted in three time frames: the period prior to 1914, the inter-war period and the period since the Second World War.

The emergence of German MNCs in the period prior to 1914

Unlike the variety of historical forms of the earliest British MNCs in the period prior to 1914, the prototype of the earliest German MNCs was pre-dominantly the ‘classic’ type. These were German companies that began to do business in Germany, and then extended their business abroad through exports and international production to reach foreign markets and to obtain raw materials. Thus, the international business activities of German
firms has, in general, always tended to be complementary to their domestic activities in Germany (Juhl, 1985).

Indeed, there seem to have been few German free-standing companies that operated in foreign countries. Even migrating MNCs that featured significantly in the history of British MNCs did not appear to have been a particularly important feature in the origins of German MNCs, and neither has there been much evidence to support the presence of German investment groups abroad, i.e. independent German companies registered in the host country with German capital and management (Wilkins, 1988b).¹ What was perhaps more common owing to the importance of cartels in the economic and international business history of Germany was FDI by German cartel representatives to encourage exports. For example, the potash cartel had a sales company in the United States prior to 1914 (Wilkins, 1989).

German FDI prior to 1914 was significant in a wide range of industries spanning the primary, secondary and tertiary sectors of economic activity.

**Resource-based FDI prior to 1914**

In broad similarity to MNCs from the United Kingdom, the emergence of German MNC activity can be traced to natural resource-based activities, particularly in mining and petroleum. Owing to the natural resource scarcity of Germany, many of the primary products required by the German economy but not produced there were obtained primarily through imports. Nevertheless, there were also extensive FDI to obtain raw materials by German manufacturing companies, metal trading companies and the Deutsche Bank in oil in the period before the First World War.

Among the most significant German manufacturing companies that integrated backward to obtain raw materials abroad were the iron and steel manufacturers (Franko, 1976). However, the large-scale corporate players in world metals before 1914 were the three German metal trading companies: Aron Hirsch and Sohn, Beer, Sondheimer and Co., and Metallgesellschaft. Metallgesellschaft—the largest of the three trading companies founded in 1881—diversified rapidly into the mining, processing and distribution of copper, lead and zinc. The firm undertook its first FDI in 1887 which included the establishment of its American subsidiary, the American Metal Company, whose principal activities were in coal mining, smelting, refining and distribution. The firm also had mining operations and processing companies in other European countries and in 1912 it built a refinery in Belgium—the largest one in Europe—to process ore from the Belgian Congo (Jones, 1996). A large trading operation in London was also established. The German metal traders succeeded individually and jointly in vertically integrating on an international scale the mining, smelting, refining and sales of all the most important non-ferrous metals. In certain metals, such as lead, zinc, copper and nickel, the firms exerted a very significant influence on world prices (Wilkins 1989; Chandler, 1990). There were also German investments in nitrate mines in Chile (Wilkins, 1988b), as well as a short-lived participation in a borax mine in Chile by the small German pharmaceutical company, Schering of Berlin, in 1897 (Hertner, 1986a).

The oil industry was another important area of early resource-based FDI by Germany
led by the Deutsche Bank and its holding companies. For example, the bank gained control of a leading oil producer in Rumania in 1903 which it placed under the control of a holding company in which it had a 50 per cent shareholding and overall management control. A vertically integrated oil business was created which included distribution companies in a number of European countries. The defeat of Germany in the First World War led to the sequestration of German foreign assets and the nationalization of Russian oil. This eliminated the Deutsche Bank from the industry (Pohl, 1989), and a significant German presence in the international oil industry never re-emerged. Even Metallgesellschaft did not resume substantial FDI in mining production until the 1970s.

**Services-based FDI prior to 1914**

Early German FDI in services were significant in trading and banking. Apart from the foreign trading activities of the metal traders, there were the trading companies or mercantile houses that established trading outlets throughout Europe in the period prior to 1914. The German trading house, Schuchardt and Schutte, which was regarded as the most prestigious distributor of machine tools in Europe had outlets in Germany, Austria, Belgium and Russia to promote German exports, and corresponding outlets in Guatemala and Turkey that played a more important role in facilitating German imports than in selling German exports (Feldenkirchen, 1987).

And then there were the ubiquitous German banks active in Europe, North and South America, Asia and Africa prior to 1914, encouraging and representing German business abroad (Tilly, 1991). The role of Deutsche Bank in relation to the German search abroad for oil in Rumania and the Middle East was already mentioned. The role of the large German banks that established foreign branches helped to support the expansion of German business abroad. This was unlike the roles of banks in the United States and the United Kingdom. In the case of the United States, national banks could not establish foreign branches until after the passage of the Federal Reserve Act of 1913 while private banks established outlets in London and Paris principally to encourage the flow of European monies to America (Wilkins, 1988b). The previous chapter has shown that the lack of British ‘universal’ banks (Cottrell, 1991) precluded the possibility of the British banking sector to assist directly in the expansion of British business abroad.

**Manufacturing-based FDI prior to 1914**

Manufacturing was perhaps the more important sector of early German FDI. The early emergence of German manufacturing MNCs can be closely associated with the position of Germany as the birthplace of modern science in the late nineteenth century (Porter, 1990). This helped the country to develop a deep scientific and technical knowledge base drawing on an abundance of skilled workers and professionals which proved instrumental in its efforts to upgrade domestic industry in the new, skills intensive, technically advanced and fast growing industries of the Second Industrial Revolution in the late nineteenth century. German firms developed strengths in the chemicals, pharmaceuticals, machinery, electrotechnical and motor vehicles industries and became significant world
producers and exporters of their new products on the basis of accumulated expertise and proprietary technology. Such strengths combined with access to international capital markets at least until the end of the First World War enabled German firms to invest abroad on a substantial scale, and to exert a significant economic impact within their host economies.

The predominance of typically large German firms and MNCs in industries producing the newest and most technologically advanced products can also be attributed to the rapid emergence of administrative hierarchies in German business organizations (Wilkins, 1988b). Although these technologically innovative large-sized firms led the process of German MNC expansion in high technology industries introducing new products and processes through FDI, German FDI prior to 1914 was also present in capital goods industries such as iron and steel manufacture, and relatively smaller and more moderate-sized German MNCs were involved in consumer goods industries such as textiles particularly in woollens and silk and, similar to the British MNCs, in a number of trademarked consumer products. Among the most notable of these was the pharmaceutical company, E.Merck, that established a sales affiliate in New York in 1887 and a production subsidiary in Rahway, New York in 1899; Schering of Berlin that established a partnership in the New York firm of Schering & Glatz established in the late 1870s; the A.W. Faber Pencil Company which was an MNC by the 1870s with its main factory in Stein (near Nürnberg), a large slate facility at Geroldsgrun, Bavaria, branches in Paris and London, an agency in Vienna and a pencil factory in Brooklyn, New York; and a number of other German companies that were involved in the international production of trademarked food products such as chocolate and coffee, among which were Kathreiner’s Malzkaffee-Fabriken, a company founded in 1892 to produce malt coffee (Hertner, 1986a; Wilkins, 1988b). The experiences of E.Merck, Schering of Berlin, the A.W.Faber Pencil Company and Kathreiner’s Malzkaffee-Fabriken, among other companies, show that it was not necessarily the large oligopolistic German firm that engaged in FDI. Ownership advantages have also resided in smaller companies particularly in the early phases of development of a specific market, and these advantages could be maintained with the increasing differentiation of the market (Hertner, 1986a).

The following sections analyse the growth of the mainstream German MNCs in their most important industries—chemicals, electrotechnical industry, and machinery and motor vehicles industries.

The chemicals industry

As mentioned, Germany dominated world production and exports in the chemicals industry other than petroleum refining prior to 1914, particularly in such sectors as pharmaceuticals and artificial dyestuffs. The growth of the German chemical industry which started in the 1860s and organized in an oligopolistic market structure owed much to home country-specific advantages such as the German educational system which created a pool of highly trained chemists and chemical engineers. The scientific orientation of German professional education was especially relevant to the dyestuffs
sector of the German chemicals industry where thousands of products were produced in small batches by large firms (Wilkins, 1988b).

**ARTIFICIAL DYESTUFFS**

The German artificial dyestuffs industry prior to 1914 comprised three large firms (BASF, Bayer and Hoechst), and three small firms (Cassella, Kalle and AGFA) (Hertner, 1986a). The three largest firms initiated international production. As Russia was the most important export market for German chemicals accounting for 21 per cent of exports prior to 1914, BASF, Bayer and Hoechst founded or participated in production affiliates in that country starting in 1877, 1883 and 1885 respectively in response to growing protectionism after the imposition of tariffs in 1877. The smaller chemical firms, Cassella, Kalle and AGFA, followed suit shortly after. Their foreign affiliate production covered only the final stages with parent firms providing intermediate products that attracted lower duties in host countries compared to final products. Indeed, parent firms contributed up to 80 per cent of the value added of the foreign affiliates (Haber, 1971). Despite the low domestic value added of the foreign affiliates, their production accounted for around 80 per cent of the German dyes sold on the Russian market in 1913 (Jones, 1996).4

Apart from tariffs, stringent patent legislation in foreign countries that required the initiation of local production was also an important determinant. For example, the French patent law which required that patent holders initiate local production immediately led to the foundation by Hoechst in 1881 of the Compagnie Parisienne de Couleurs d’Aniline to produce aniline dyes and pharmaceutical products at Creil (Oise) starting in 1884. BASF similarly established a plant at Neuville-sur-Saône near Lyon in 1878. A change in British patent legislation in 1907 which required that a foreign patent registered in Britain be exploited in that country lest it would be revoked prompted Hoechst, acting on behalf of Casella and Kalle, to establish a plant in Ellesmore Port near Liverpool and BASF, acting for the **Dreibund**, to found the Mersey Chemical Works not far from there and to transfer nearly 20 per cent of its new patents to this new affiliate.5 Over the next few years, the Hoechst affiliate at Ellesmore Port was practically responsible for the domestic production of indigo, while the BASF subsidiary focused on the production of other aniline dyes and eventually became less reliant on patent transfers from Germany owing to the lack of enforcement of the 1907 British Patent and Designs Act (Hertner, 1986a).

By comparison, the more lax patent legislation in the United States in which there was no legal obligation to use registered patents in the country itself served not to coerce German chemical firms to establish production facilities if this was not otherwise warranted. For example, while having registered about 1,000 patents in the period until 1914, BASF did not establish a factory in the United States. By contrast, Bayer, which registered roughly the same number of patents over the same period, owned a production facility in Albany, New York and eventually came to own three of the seven dyestuffs plants in that country (Jones, 1996). The Synthetic Patent Company Inc. which held all the Bayer patents registered in the United States provided licences to the American Bayer Company. This enabled the Synthetic Patent Company to reduce its tax burden owing to
the lower taxes levied on gains from licences compared to those levied on gains from production (Hertner, 1986a). All other German dyestuff companies while not having production facilities in the United States had quite extensive commercial organizations.

**PHARMACEUTICALS**

Like the German artificial dyestuffs industry, the German pharmaceutical industry also comprised smaller firms such as E.Merck and Schering of Berlin and larger firms such as Bayer and Hoechst, all of which became MNCs prior to 1914. In terms of size of employment, E.Merck was perhaps the largest of the specialized pharmaceutical firms existing in Germany prior to 1914, followed by Schering of Berlin. E.Merck had always been actively engaged in exports which accounted for 77 per cent and 67 per cent of its total sales in 1900/01 and 1912, respectively (Hertner, 1986a). The firm’s most significant foreign export markets in 1900/01 were Russia (with a share of 18 per cent of total sales), followed by Latin America (11 per cent), United States (11 per cent), Great Britain (6 per cent), Austria-Hungary (5 per cent), Spain and Portugal (5 per cent), and Italy (4 per cent). The growth in importance of the German market in 1912 was accompanied by a diminished share of exports directed to Russia (12 per cent) and the United States and Canada (8 per cent).

The lesser significance of Russia and the United States as important export markets for E. Merck can be largely explained by the substitution of exports by FDI. Thus, owing to high tariffs in Russia, its principal export market, E. Merck regarded FDI as inevitable even though the extent of its FDI went only as far as establishing a bottling and packing department at its Moscow agency in 1906, with no manufacturing initiated at the time of the First World War. In a similar fashion, the diminishing role of the United States as an export market can be considered a consequence of the migration of George Merck, a family member, to the United States which led to the foundation of a sales affiliate in New York in 1887, and the establishment of the firm of Merck & Co in 1899 which coincided with the initiation of production of pharmaceuticals in Rahway, New York. The major determinants of international production in the United States was the relatively high American import duties on pharmaceuticals, the rapid growth as well as the large size of the American market and the peculiar nature of marketing pharmaceutical products in the United States in which chemists’ shops were not supervised by scientifically trained pharmacists with the consequence that preference was often accorded to the sales of ready-made and packed drugs (Hertner, 1986a).

Although Europe was a less important export market for the firm, it nevertheless also established a number of small sales agencies in Genoa, Florence, Rome, Livorno, Naples, Palermo and Catania between 1898 and 1900, all of which was centrally orchestrated from Milan. The addition of a depot in the Milan agency around 1900 led to the substantial decline of the company’s exports to Italy from its factory in Darmstadt from 87 per cent in 1890/91 to 34 per cent in 1913. A corresponding initiative was made in London in 1901 and in Paris in 1902 where a limited joint venture with a local firm, Bousquet, was concluded enabling the local firm to use E.Merck’s brand names for some pharmaceutical products bottled and packed in France. This arrangement was provoked
by the French prohibition against the import of pharmaceuticals in tablet or capsule form as well as the French patent law of 1844 which did not allow the patenting of any type of medicine. In 1910 the firm decided to initiate production itself by acquiring a small chemical factory at Montreoue near Paris owing partly to the frequent increases in French tariffs to protect the infant domestic pharmaceutical industry. Shortly before the outbreak of the First World War, some 90 per cent of the fine chemicals required for French pharmaceutical production were either exported from Germany or passed through French affiliates of German industry. The outbreak of the First World War led to the seizure of the Montreoue factory by the French authorities in 1914, and when it was taken into custody under the Trading with the Enemy Act in 1917, the factory’s capital was valued at $1 million and was a fully integrated production facility which no longer depended exclusively on the imports of German intermediate products (Hertner, 1986a).

The extent of international production of Schering of Berlin, E. Merck’s major competitor, included a partnership in the New York firm of Schering & Glatz established in the late 1870s; the establishment of a pharmaceutical factory in Moscow in 1905 using imports of chemical raw materials and intermediates from Germany; as well as a charcoal plant using the immense resources of Russian timber built at Wydriza in the Mogilev province (Hertner, 1986a).

In addition to the international production of the relatively small German pharmaceutical firms were those of the large chemical companies, among which were Bayer and Hoechst which devoted part of their activities to the manufacture of pharmaceuticals in both domestic and foreign markets. Apart from dyestuffs, Bayer developed aspirin which it also produced and sold as a trademarked product in the United States until 1921. Bayer thus became a substantial chemicals manufacturer in the United States (Jones, 1996).

The electrical equipment industry

The growth of the German MNCs in the electrical equipment industry is strongly associated with the virtual duopoly of the German electrotechnical industry comprising Siemens and Allgemeine Elektricitäts-Gesellschaft (AEG) after 1903, and some specialist firms in the industry such as Bosch.

Germany is the home country of Siemens, one of the pioneering German MNCs in manufacturing. The firm, founded as Siemens & Halske in 1847, pioneered the development of telegraph and cable equipment. Indeed, the firm owed much of its success in the first three decades of its existence to the telegraph business, and only gradually to the telephone business. The firm can be considered to be a ‘classic’ MNC as it began by undertaking value-added activities in its home market before initiating international production. The firm established a factory at St Petersburg in 1855 as a consequence of considerable orders from the Russian government to construct and maintain a telegraph network. The factory which undertook the assembly of parts sourced from Berlin was directed by Carl Siemens, brother of Werner Siemens, the firm’s founder. Another brother, William, represented the company’s business interests in Britain from 1850 and directed the British Siemens subsidiary founded in 1858. This
subsidiary initiated the production of sea cables in 1863 (Scott, 1958). Expansion abroad continued in 1903 when there were 30 so-called technical bureaux installed, eight of which were located in European countries. As with the first foreign production affiliate established in Russia in 1855, some of the foreign production affiliates started with the assembly of parts imported from the parent firm. By 1914, Siemens had built ten foreign factories spread over five countries. Almost one-fifth of the firm’s total workforce of 80,000 was employed outside Germany (Von Weiher and Goetzeler, 1977).

The origins of Siemens’ main competitor, Allgemeine Elektrizitäts-Gesellschaft (AEG), can be traced to 1883 in its position as the German licence holder of the American Edison Company. During the first decade of its existence, the firm not only depended on the technical ties with the American Edison Company but also on the equity participation of Deutsche Bank and Siemens. The company always derived its growth from the production of high-voltage electrical equipment particularly since it gained complete independence from Edison and Siemens in 1894. The growth of the company’s FDI was determined not as much by the increasing tariff duties under Tsarist Russia as by the growing pressures from the Russian administration which insisted on domestic production for continuing state orders of public utilities. Despite these pressures, AEG continued to look after its Russian business through local agents but founded a sales company based in Berlin in 1898 for its Russian business interests. This was short-lived as the company had to transfer its legal seat to St Petersburg in 1902 to avoid the loss of the Russian market. Only after its merger with the Union Elektrizitäts-Gesellschaft (previously controlled by General Electric) in 1905 did the AEG take hold of the Union’s electrotechnical factory at Riga (Hertner, 1986a). The firm also acquired factories in Austria-Hungary and established joint venture production subsidiaries with General Electric in Italy and with Siemens in Russia (Chandler, 1990).

The German firm of Bosch which had grown out of a small mechanical and electrotechnical workshop founded by Robert Bosch in Stuttgart in 1886 gained prominence in the production since 1898 of magneto ignitions for cars and, to a lesser extent, for airplanes. Shortly before the First World War, the firm diversified into the production of other electrical equipment for the car industry such as starters and headlights. The growth of the company as a MNC was initiated with the foundation in France in 1899 of the Automatic Magneto Electro Ignition Company Ltd. which was responsible for the company’s sales in France and Belgium. Such affiliate initiated the production of magneto ignitions for trucks in 1907 in light of the subsidies extended by the French state to producers of those vehicles whose parts were solely made in France. The French car industry, the most important car industry in pre-1914 Europe, became a highly important customer for Bosch, and hence the company had a quasi-monopoly in the French market with annual sales of 10 million francs before the outbreak of the First World War (Hertner, 1986a). A similar trend towards domestic production of components used for racing cars participating in certain racing events in Great Britain led to the initiation of assembly production by its affiliate in London, the Bosch Magneto Company Ltd, founded in 1907. In the first half of 1914, the local affiliate satisfied approximately 85 to 95 per cent of British demand for magnetos and spark plugs (Hertner, 1986a).
Bosch also founded sales affiliates in New York in 1906, in Chicago in 1908, in San Francisco in 1909, and in Detroit in 1910. However, the high cost of freight and the 45 per cent tariff on the value of magnetos led to the construction of a magneto factory in Springfield, Massachusetts in 1910 where production started in 1912. This was accompanied by a spate of acquisitions in 1912 including the 45 per cent share of the equity capital of the Eisemann Magneto Company in 1912, the American affiliate of its principal German competitor, and the full acquisition of the Boonton Rubber Manufacturing Company of New York in the same year. The latter was the largest producer of moulded insulation, an essential material to the magneto industry.

By the first half of 1914, the Bosch company exported some 88 per cent of its domestic production and had established agencies and factories in 25 countries (Hertner, 1986a). Bosch and Eisemann combined accounted for at least half of all the magnetos sold in the United States before the First World War. At the seizure of the company’s properties in the United States in 1918, the combined capital and surplus of Bosch’s assets in the United States exceeded $6.5 million which included branches in Detroit, Chicago, and San Francisco as well as agencies and supply depots in over 100 American cities.

There are other examples of German firms in electrotechnical industry whose FDI was motivated by a common set of factors. While state intervention in the form of tariffs or non-tariff barriers was a major explanatory factor, particularly if the state was an important customer as in the case of Russia, there were other contributory factors of which the most significant was the access to international capital markets of the Unternehmergeschäft, the large German trusts that founded local and regional power, tramway and lighting companies in Russia, Italy, Spain and Latin America. Such capital access was provided in the form of acquisition of financial holdings in each of the electrotechnical producer companies by large banks in Germany and international capital markets, some of which were based in Switzerland or Belgium owing to the very liberal company laws and stock exchange regulations in those countries. Such establishment of intermediate financial holding companies enhanced the capacity of the newly created German public utility companies abroad to engage in FDI as it provided a means to overcome the chronic lack of capital of their major customers—the local public authorities in foreign countries—and to counteract the liquidity problems of the electrotechnical firms themselves associated with the accumulation of a growing volume of equity capital and bonds in their portfolio. Thus the equity capital and bonds of the newly created public utility companies were held typically in the portfolio of the financial holding companies during the periods of establishment and initial development, and sold to the general public at a later stage when profits could be earned (Hertner, 1986b). This enabled about 50 per cent and 40 per cent of the local and regional public utility companies in Italy and Russia respectively to be controlled by German capital in 1913.

The loss of this access to international capital markets at the end of the First World War led to a similar loss of a major part of German FDI, particularly in the technologically mature high-voltage sector of the business where German firms faced growing competition in world markets. By contrast, the growth of the more rapidly technologically advancing low-voltage sector of the business (telephone installation) continued, and exports of products in this sector displayed a better performance in the
The machinery and transport equipment industries

The machinery and transport equipment industries were also significant industries that spawned German MNCs. Among these were Mannesmann, Accumulatoren-Fabrik AG and the Daimler Company.

Based on the highly original invention patented in 1886 for producing seamless rolled tubes, the company formed by Reinhard and Max Mannesmann was practically an MNC from its inception (Teichova, 1983). The history of the company shows the establishment of three formally independent subsidiary companies between 1887 and 1889, in addition to the company’s original plant. Each of the three subsidiary companies was located in Saarbrücken, Germany; Austro-Hungarian Bohemia; and in Landore in Britain. While the Landore Mannesmann Tube Company was taken over by its parent company in 1899 to gain control over the British market for seamless tubes and to profit from trade with the British empire and dominions, the two other independent companies located in Germany and Austria were amalgamated in 1890 in the Deutsch-Österreichische Mannesmannröhren-Werke with a capital of 35 million marks and was brought under the financial guidance of the Deutsche Bank. The two inventor brothers received half of the new shares of the new amalgamated company in return for their patents. Their equity participation was sold in 1900 allowing Deutsche Bank to become the uncontested entrepreneur and financier of the company. The Austro-Hungarian Bohemia affiliate which eventually represented the most important foreign asset of the firm gained from high Austro-Hungarian tariffs and succeeded in attaining a share of 35 per cent in the cartel of rolled tubes in that country. The affiliate accounted for one-third of the Mannesmann combine’s total turnover in the last pre-war year when all non-German subsidiaries accounted for 45 per cent of the overall volume (Teichova, 1983).

A similar trend is evident in the other machinery and motor vehicle industries which spawned the generation of early German MNCs. Among these were Accumulatoren-Fabrik AG and the Daimler Company. From the 1890s, Accumulatoren-Fabrik AG active in standardized light machinery built a network of storage battery factories across Europe from Britain to Russia, and an international marketing network that extended from Buenos Aires to Cairo and Tokyo. The Daimler Company, which began manufacturing in Austria in 1902, claims to be one of the world’s first multinational motor companies (Jones, 1996).

The interrupted growth of German FDI in the inter-war period

The emergence of German FDI prior to 1914 thus makes German MNCs share a common origin in time to MNCs based in other developed countries, even though the exact patterns of the emergence or the pace of the evolution of MNCs based in the different countries may not necessarily coincide. The First World War marked a period that was to differentiate the history of German MNCs from that of MNCs based in other developed
German FDI slowed down dramatically in the period after the end of the First World War. The sequestration of German tangible and intangible assets abroad after the Versailles Treaty discouraged the further international expansion of their most dynamic set of firms—the manufacturing companies—that nevertheless possessed a substantial amount of surplus capacity. The confiscation of assets crippled firms in the chemicals industry the most whose intangible assets such as brand names and patents were invaluable in relation to physical assets. As a result, German manufacturing firms became more risk averse in the inter-war years and to the extent that any FDI was undertaken, the emphasis by the larger German enterprises was often on re-building extensive international distribution networks after the First World War, while their foreign production remained modest. Such was the strategy, for example, of IG Farben, a large chemicals company formed in the mid-1920s by the merger of eight firms including Bayer, BASF and Hoechst. In addition, the choice of a host country was based not merely on promising economic expectations, but rather on the stability of their political and legal systems that assure the safety of German assets. Owing to these criteria, German FDI was generally confined to Eastern Europe and Scandinavia. The geographical and psychological proximity of Scandinavia was especially favoured owing to its modern networks of communication and transportation, its rapidly growing markets with a high per capita income and as a key source of wartime supplies, particularly of food and raw materials, during the Nazi period. The Scandinavian countries, therefore, formed a major part of Germany’s *Großraumwirtschaft* (expanded economic sphere) in the event of war (Schröter, 1988).

The loss of overseas holdings at the end of the First World War and the severe constraints posed by the shortage of capital in the inter-war period forced German firms to replace FDI with other modes of international economic expansion that conserved the use of capital and entailed less risks, primarily political risks. In the period between 1918 and 1939 these other modes were principally cartels and long-term contracts (including licensing agreements) in which German industry had experienced considerable success before the First World War. These tools came to be used more widely by German firms than by firms of another nationality (Schröter, 1988).

To ensure the success of the new tools of international economic expansion, the strengths of German industries was consolidated on a nationwide basis. This process was carried out in the mid-1920s when large national cartels were formed and when major mergers created very large companies such as IG Farben already mentioned and the Vereinigte Stahlwerke. Such a process of domestic consolidation provided Germany with clout to mount a major export drive or to conclude international cartels and long-term contracts as a means to recapture their pre-war share of world markets.

For much of the inter-war period, the foreign economic policy of Germany aimed at four important objectives: the long-term security in the supply of raw materials; the maintenance of access to markets or the search for markets; the security against competition through a strategic market presence; and influence in political decision making in either the home or host host country or both focusing mainly on customs duties, tariffs, and legal matters relating to ownership, but sometimes also including
attempts to influence national economic and even defence policy (Schröter, 1988). The importance of FDI, international cartels and long-term contracts as instruments of foreign economic policy varied according to the objective.

In the pursuit of the objective to attain long-term security in the supply of raw materials, FDI represented the most important tool. Although long-term contracts were the traditional means employed by Germany to obtain security in raw material supplies, this represented only a second-best solution. The high capital intensity as well as high political risks associated with FDI was outweighed by the desire of large resource-based German industries and firms (e.g. iron and steel and paper) to control the long-term supply of vital raw materials from nearby sources. However, Scandinavian laws that limited foreign ownership of natural resources prevented German firms from attaining the high degree of control desired. Thus, their FDI was often complemented by comprehensive long-term delivery contracts to bind their local partners to supply vital raw materials on favourable terms. The success of these long-term contracts was assured by the large size of German national cartels that participated in these contracts that often intervened to prevent any significant attempts of their Scandinavian partners to diversify their customer base in order to remain their biggest and most influential buyer (Schröter, 1988).

In the pursuit of the objective to secure markets, German companies used a combination of FDI, international cartels and long-term contracts in a complementary manner. International production was not the dominant means to achieve this objective except perhaps for Osram, the largest light bulb supplier formed from the merger of the incandescent lamp sectors of the three major German electrical firms: Siemens & Halske, AEG and Auer. The light bulb industry was an exceptional German industry that was not affected by the events of the First World War. Osram established several new foreign subsidiaries between 1914 and 1922 in Denmark, Norway and Sweden to serve three main purposes: to supply the indigenous market; to prevent the entry of other firms in the industry; and, most importantly, to strengthen the position of Germany in international negotiations for the revival of the worldwide bulb cartel (Schröter, 1988). Thus the Phoebus agreement was signed in 1924 (Schröter, 1986). The Osram investments in Scandinavia while geared primarily to secure foreign markets was also key to the attainment of the other objectives of the foreign economic policy of Germany.

Cartels and long-term contracts were perhaps the more significant means employed by Germany to secure markets. Two of the cartels concluded by German firms operating in Scandinavia were geared for this purpose: the International Coke Convention signed on 11 June 1937 and valid from 31 March 1940 to 1 April 1947 and the cartel for certain electrical commodities covering the Swedish market from 1925 onwards concluded between the dominant suppliers of electrical equipment and public utilities in Scandinavia: the Swedish firm, ASEA, and the German companies, AEG and Siemens. On the other hand, long-term contracts were preferred in instances where a foreign enterprise enjoyed a degree of influence in a particular market. An example of such contract geared to generate growth of sales in a related line of business in foreign markets was that concluded between IG Farben and the Finnish ‘Valio’ dairy cooperative. The basis of the reciprocity was the patents obtained by the Finnish dairy cooperative for the
AIV process used to conserve livestock fodder and the required chemicals for such process provided by IG Farben (Schröter, 1988).

In the pursuit of the objective of security against competition through a strategic market presence, German companies used a combination of FDI, international cartels and long-term contracts, with perhaps the first two exerting greater importance relative to long-term contracts. A mixture of defensive factors (to defend loss of foreign markets) and offensive factors (to prevent the entry of indigenous and other foreign firms in a market to avoid cut-throat price competition and retaliation) underlined the motive to overcome competition in foreign markets that went beyond concerns about supplies, sales and profits. The mode of FDI was used by IG Farben, then the biggest nitrogen producer in the world, to maintain its dominance and control over the world nitrogen industry. This was implemented by an exchange of shares between the Norwegian firm, Norsk Hydro, and IG Farben and the centralization of the sales organization of the two firms in the German *Stickstoff-Syndikat* (nitrogen syndicate). The investment enabled IG Farben to overcome the problems of overcapacity through its control of Norsk Hydro’s exports and their channelling through the German sales network. This enabled IG Farben’s market power in foreign markets to rise along with its clout in international negotiations. Such was the case in the export cartel concluded with Imperial Chemical Industries in 1929 which formed the nucleus of all international nitrogen agreements (Schröter, 1988).

IG Farben also pursued a defensive and offensive stance in international markets through cartels. The most notable example was the ferrosilicon cartel it formed in 1927 with other firms based in Sweden, Norway, Yugoslavia and Switzerland which endured until 1939. Its success led to the cartelization of firms in other iron alloys. Another important cartel in which IG Farben was a participant along with the American company Du Pont was that involving the world market in synthetic fibres in effect in 1938. The cartel arrangements involved the construction of a plant in Germany by IG Farben with a designated minimum output to ensure the ability of the cartel to meet fully the anticipated world demand. This was reinforced by cross-licensing agreements that served to prevent the entry of new firms in the industry. The cartel for certain electrical commodities comprising ASEA, AEG and Siemens mentioned earlier, the chlorine cartel formed between the Chlorstelle (Germany), Imperial Chemical Industries (Great Britain) and Solvay (Belgium) in November 1938 and the participation of IG Farben in the worldwide nitrogen cartel—the Convention de l’Industrie de l’Azote—all succeeded in preventing the entry of new competing firms or the development of new industries in non-member countries. To the extent that long-term contracts were used to stem the tide of competition, German firms licensed valuable patents to only a few reliable and well-known Swedish chemical firms before the Second World War (Schröter, 1988).

In the pursuit of the objective of influencing political decisions in both domestic and foreign markets, FDI and long-term contracts were perhaps the principal instruments used by German companies. Through its Swedish subsidiary, the SB Anilinkompani in Göteborg, IG Farben played an influential role in resisting the increase or at least preventing the substantial increase in Swedish import duties on a variety of products of interest to IG Farben. And by way of contracts, a secret organization—the Deutsch-Schwedische Ausschuß—was founded and financed by major German businesses in
Sweden including AEG, Siemens, IG Farben, and Vereinigte Stahlwerke. The organization was a form of propaganda in Scandinavia working with the Swedish media to stem the tide of anti-German sentiments (Schröter, 1988).

In sum, German companies in the inter-war period used a variety of means to pursue their foreign economic policy objectives. Although FDI was ideal in terms of enabling a high degree of control, it presented disadvantages by way of requiring long-term capital from a country suffering from economic disruption and severe shortage of capital, and entailed an unacceptably high level of political risks for many German inter-war enterprises. This helps to explain why FDI was really only used in a major way to fulfil the foreign economic policy objective to secure the long-term supply of raw materials where the advantages of FDI more than outweighed the disadvantages. In the pursuit of the other objectives of foreign economic policy, international cartels was the most important tool used by German firms in the inter-war period and long-term contracts and FDI were relatively less important. Thus, from being the fourth-largest home country of FDI responsible for more than 10 per cent share of the global stock of outward FDI in 1914, the share of Germany declined dramatically to a mere 1.3 per cent share in 1938 (Dunning, 1983).

The evolution of German MNCs since the Second World War

As Germany experienced a second round of defeat in the Second World War, German firms increasingly displayed a stronger degree of reliance on their home base. The loss of some of the most modern parts of its industrial base as well as natural resources and the confiscation of German patents and foreign assets after the two world wars created strong pressures to upgrade German industry in advanced, knowledge-based industries and to foster technological innovation in indigenous firms (Porter, 1990). Such domestic embeddedness of German firms is manifested in their continued preference for exporting over FDI as an internationalization strategy even to the present time, and in the continuing concentration of their outward FDI in Western Europe. Even in highly internationalized industries such as chemicals, German companies remain more deeply embedded in their home market than their British counterparts in the same industry by whatever measure, thus underscoring the importance of national factors over industry influences in explaining differences in behaviour of firms of different nationalities in the same industry (Lane, 1998).

Indeed, German manufacturing firms undertook comparatively little FDI until two decades after the end of the Second World War, preferring to use export strategies to take advantage of the fast growth in world trade and the opportunities offered by European economic integration (Jones, 1996). Thus, the share of Germany in the global stock of outward FDI in 1960 at 1.2 per cent share was as insignificant as its share of 1.3 per cent share in 1938 (based on data in Dunning, 1983), and a considerable share of this FDI consisted of sales and service foreign affiliates in support of export activity (Heiduk and Hodges, 1992).
The recovery of Germany as an important source of outward FDI became evident only in a major way since the 1970s. The comparatively high level of R&D intensity characteristic of German firms and MNCs from the beginning remained their most consistent distinguishing feature that sets them apart from MNCs of other nationalities. Indeed, a regression analysis of the industrial advantages of Germany on pooled cross-sectional sets of data for the years 1965, 1970 and 1975 showed that the degree of innovation and the creation of technological ownership advantages as well as the skill level of managerial manpower exerted highly significant *positive* influences on German FDI in manufacturing, while the skill level of production workers had a significant *negative* effect. This roughly mirrors the findings for German manufactured exports which showed that the technological intensity and the skill level of production workers exerted highly significant *positive* influences, while capital intensity and the complexity of management exerted significant *negative* influences (Clegg, 1987). The findings show that the ownership advantages of German MNCs, unlike MNCs based in the United States or the United Kingdom, were based more on technology and skilled labour than on capital intensity. During this period, there was no evidence to show that access to capital was an ownership advantage of German MNCs in the way that it was during the period prior to 1914. In the concentration of German FDI in Western Europe, German MNCs also have a more narrow geographical focus compared to American or British MNCs, and have been significant in a narrow spectrum of medium- to high-technology industries in which domestic activity is also strong.

By 1980, Germany became the third-largest home country of FDI after the United States and the United Kingdom with a share of more than 8 per cent of the global stock of outward FDI. While maintaining the third-largest position as a source country of FDI in 1998, the level of German outward FDI stock grew almost ninefold since 1980 and as a result the share of Germany in the global stock of outward FDI increased to almost 9.5 per cent. Manufacturing continues to be an important sector of German FDI, accounting for 44 per cent of the stock of German outward FDI in 1997 and predominated in the same set of industries that German firms and MNCs have demonstrated industrial strengths since their history: transport equipment, chemicals, electrical machinery and mechanical engineering. In fact, until the mid-1970s the manufacturing and services sectors each accounted for almost equal shares of between 47 per cent and 48 per cent of total German outward FDI stock. However, manufacturing surpassed services in importance by 1988 with a share of 61 per cent of the stock of German FDI. The dominant role of the services sector in the stock of German outward FDI evident in the case of the United States since 1989 and in the United Kingdom in 1991 has also been evident in the case of Germany in the 1990s. By 1997, services accounted for almost 56 per cent of the stock of German FDI.

In terms of the geographical destination of German FDI, although the United States and South East Asia grew in importance as host countries in more recent years, German FDI continued to predominate in neighbouring European countries such as Belgium, the Netherlands, France, Switzerland, Austria, and the United Kingdom. In the chemical industry, the extent of German implantation into a European network is so high that Europe will continue to be a highly important host region for German FDI in the next
century (Lane, 1998). The traditional multi-domestic strategy continues to be adopted by both large- and medium-sized German MNCs that regard FDI as a means to be in or near important markets and customers, to adapt products to fit the exact needs of their buyers as well as to provide effective systems solutions (Heiduk and Hodges, 1992).

Despite the recovery in the importance of FDI as mode of international economic involvement for Germany in the last 30 years, it has remained a secondary strategy for internationalization as a majority of large German companies continue to serve foreign markets primarily through exports. Indeed, since Germany generates the second-largest export volume in the world economy it is a relatively more important source of exports than of FDI (Heiduk and Hodges, 1992). The greater relative importance of exports as well as the limited geographical scope and the concentration of German MNCs in a narrower spectrum of industries suggest that German companies have remained essentially as nationally embedded firms pursuing a well-entrenched localization strategy and proceeding rather slowly along a continuum to become globally oriented MNCs (Lane, 1998). But there are already emerging signs that the progression along the continuum is proceeding very rapidly. First, German firms are utilizing other modes to internationalize their business activities other than through exports and FDI. This includes strategic alliances and joint ventures which have become particularly dense in high technology industry segments where German firms are heavily involved. Second, international competition is forcing German firms to combine their traditional competitive strengths based on technological excellence and quality with price competitiveness. This has made foreign sourcing and FDI in neighbouring countries of Western and Eastern Europe more popular in recent years, particularly in the less skill intensive parts of the production chain that profit from access to abundant unskilled and semi-skilled labour of low cost. Third, and perhaps more importantly, there has been an increasing need to extend the R&D networks of German firms in foreign countries particularly in the chemicals and information technology industries where innovation is best utilized and transformed in proximity to foreign customers, competitors and research centres (Dörrenbächer and Wortmann, 1991). The need to gain access to complementary innovations in the same industry segment combined with the difficult process of obtaining German government permission for sensitive research in biotechnology has also tended to pull MNCs away from a sole focus on the home market as a prime determinant of innovation (Cantwell, 1989a).

Conclusion

This chapter narrated the long and discontinuous history of German MNCs. Despite the discontinuous pattern in their evolution owing to the political defeat of Germany in the two world wars, certain features of German MNCs persist throughout their history. Although FDI has historically served the purposes of obtaining vital raw materials for domestic industry in light of Germany’s scarcity of natural resources and maintaining or securing access to important foreign markets, the overwhelming objective of German FDI has always been to maintain or secure access to foreign markets. Manufacturing has
always been an important sector of German FDI and has concentrated the most in chemicals, motor vehicles, electrical engineering and mechanical engineering for at least 145 years. German firms have also consistently derived their competitiveness from their high degree of technological and skills intensity, and their predominant host countries have constantly been neighbouring European countries. Some evidence of a structural change in the sectoral pattern of German FDI became evident in the 1990s when the services sector became the dominant sector at the expense of the manufacturing sector.

Notes

1 The limited evidence of migrating MNCs as an originating form of German MNCs is seen in Rheinishche Stahlwerke AG established in 1869 by Frenchmen and Belgians whose headquarters was once in Paris, France. In addition, the predecessor of the German firm, Allgemeine Elektricitäts Gesellschaft (AEG) was once part of an American business abroad (Wilkins, 1988b).

2 In world exports in the pharmaceutical industry in 1913, Germany had the dominant share of 30 per cent followed by United Kingdom (21 per cent), the United States (13 per cent) and France (12 per cent). Excluding petroleum refining which was particularly important in the American chemical sector, the German chemical industry retained a clear lead in world chemical production and its exports accounted for an estimated 28 per cent of world exports in chemicals (Hertner, 1986a). In the artificial dyestuffs industry, the total value produced by eight German firms and their foreign subsidiaries amounted to 75–80 per cent of world production in 1913, and some 85 per cent of German production was exported (Haber, 1971). In the electrical industry, Germany had a share of between 31 and 35 per cent of world production, while the United States had a share of between 29 and 35 per cent. German industry accounted for a dominant share of 46 per cent of world exports of electrotechnical material, followed by Great Britain (22 per cent), and the United States (16 per cent) (Hertner, 1986a).

3 The view that size of firms is not a good indicator of the propensity of firms to become MNCs is shared by Swedenborg (1979) in analysing the growth of Swedish MNCs. See Chapter 4 of this book.

4 By contrast, there was no German artificial dyestuffs production in Italy until the First World War because by providing concessions to Italy’s exports of agricultural products to Germany, German trade negotiators succeeded after 1878 to keep Germany’s exports of dyestuffs and related chemicals to Italy totally free of duties (Hertner, 1986a).

5 The diminution of firm-specific advantages after 1900 in the dyestuffs sector resulted in the formation of two Interessengenmeinschaften, the so-called Dreibund (BASF, Bayer and AGFA), and Hoechst which controlled Casella and Kalle (Hertner, 1986a).

6 This affiliate in France later changed its name to Compagnie des Magnétos Simms-Bosch to reflect its partnership with Fredric R. Simms. The dissolution of the
partnership in 1906 led to a further change of name of the French affiliate in 1908 to Société des Magnétos Bosch to reflect the new ownership situation (Hertner, 1986a).

7 The international business activities of Bosch in London predate 1907 when its British partner Fredric R. Simms represented the Stuttgart firm as an agent in London, an arrangement that ceased to exist in 1907 (Hertner, 1986a).

8 Another significant acquisition by Bosch in the United States in 1914 was the plant, business and goodwill of the Rusmore Dynamo Works at Plainfield, New Jersey, for $750,000. This factory was shut down and dismantled shortly thereafter (Hertner, 1986a).

9 As a national firm, the Landore Mannesmann Tube Company became one of the main suppliers of boiler pipes for the British Navy. In 1913 the construction of a second and larger rolling mill at Newport near Cardiff was approved for the intended purpose of producing large-diameter tubes as a replacement for imports from the German parent firm. Production had not begun when the First World War broke out (Hertner, 1986a).

10 Mannesmann also established a rolling mill in Italy in 1906 not so much on account of the Italian tariff, but in the hope that the mill could profit from state orders for the railways, the navy or the new programme of municipal aqueducts in southern Italy. The rolling mill was established as part of a company founded under Italian law and with an Italian metallurgical firm as a minority partner. Production started in 1909, but improvements in output and profitability came only in 1912. The company was seized when Italy entered the war in May 1915, and was eventually sold to a group of Italian banks in 1916—a transaction made with the agreement of the Italian government via neutral Switzerland (Hertner, 1986a).

11 Bayer, for example, recovered the right to use its own brand name in the North American market only in 1994 at a cost of $1 billion (Jones, 1996).

12 Two-thirds of the 726 subsidiaries or partly-owned affiliates of IG Farben in foreign countries by the end of the 1930s were sales agencies, and most of the remainder were engaged in the finishing and packaging of pharmaceuticals and dyes (Schröter, 1990, as cited in Jones, 1996). The dismantling of IG Farben after the end of the Second World War led to the resumption of foreign production by BASF, Bayer and Hoechst as independent companies. Their initial overseas investments were directed to Latin America, often re-purchasing plants lost in the war. Afterwards, investments grew elsewhere in Western Europe and North America. By 1965, German chemical companies had 150 foreign production plants (Jones, 1996).

13 Norsk Hydro obtained a minor holding in IG Farben (3.6 per cent share in IG Basle, a subsidiary of IG Farben in Switzerland) and IG Farben received 25 per cent of Norsk Hydro’s stock in return. The German influence in Norsk Hydro was much greater than the 25 per cent share indicated (Schröter, 1988).
14 The cartel in electrical equipment succeeded in hampering the development of the Finnish electrotechnical enterprise F.Strömberg OY which emerged after the First World War; the chlorine cartel served to delay the construction by the Finnish government of a chlorine factory in Finland; and the nitrogen cartel averted the construction of a nitrogen factory in Denmark, and caused the delay in the construction of a nitrogen factory in Finland (Schröter, 1988).

15 The analysis in this paragraph is based on data contained in UNCTAD (1999).
9
The emergence and evolution of multinational corporations from Japan

Introduction

This chapter is devoted to the history of Japanese MNCs. The distinctive nature of Japan lies in its rapid development as a significant source of outward FDI in the world economy in the period since the Second World War accompanied by an equally rapid process of industrial transformation of the Japanese economy and of Japanese MNCs. In 1914, Japan accounted for an almost insignificant share of 0.1 per cent of the stock of outward FDI worldwide, and even by 1960 their share remained low at 0.7 per cent. By 1998, Japan stood as the fourth-largest home country of FDI after the United States, United Kingdom and Germany, and accounted for some 7 per cent of the stock of outward FDI worldwide. Notwithstanding the more recent growth in significance of Japanese MNCs, their earliest emergence can be traced to the late nineteenth century in much the same way as German MNCs. As in the previous two chapters on the growth of MNCs from the United Kingdom and Germany, the historical excursion into the determinants of Japanese FDI and their industrial and geographical patterns is conducted in three time frames: the period prior to 1914, the inter-war period and the period since the Second World War. As will become evident, the growth of Japanese MNCs is in many respects sui generis in the growth of modern MNCs.

The emergence of Japanese MNCs in the period prior to 1914

The existence of Japanese MNCs since the late nineteenth century is distinctive for many reasons. Perhaps the most fundamental feature distinguishing the emergence of Japanese MNCs from MNCs from the other more historical home countries is that the period in which it occurred—the late nineteenth century—was one in which the Japanese economy was still relatively undeveloped. Indeed, even by 1913 Japan accounted for a mere 1.2 per cent of world manufacturing output by comparison to the United States which accounted for some 35.8 per cent (Wilkins, 1986b). The emergence of Japanese FDI at that time cannot be said to be related to strong technological, organizational or capital intensities that describe the more modern Japanese MNCs of the present time. Rather, the early emergence of Japanese MNCs can be explained in terms of their important role in sustaining the economic development of Japan in which trade had always been regarded as the engine of growth.
In the late nineteenth and early twentieth century when Japanese MNCs first took form, Japan overcame the problems of its resource scarcity through imports of basic raw materials such as raw cotton and iron financed by the exports of other raw materials, primarily coal and raw silk. The important role of trade in the Japanese economy thus required the presence of an infrastructure in support of trade—banks, shipping companies, marine insurance companies and, above all, trading companies. Without such companies, Japanese economic development could not occur (Hirschmeier and Yui, 1975). Between 1858 and the late nineteenth century, such international trade infrastructure was provided entirely by foreign merchants encouraged by the opening of Japanese ports to foreign trade. Even by 1887 some nine-tenths of Japan’s external trade was handled by foreigners, mainly British houses (Maddison, 1969) and foreign companies also provided auxiliary services in shipping, banking and marine insurance facilities (see for example, Wray, 1984). The realization of the central role of trade in the Japanese economy and that the dominant role of foreign companies posed a threat to Japan’s economic security and prosperity not the least because of their role in exacerbating balance-of-payments difficulties led the Japanese government to persuade the most prominent local businessmen to initiate the creation of large specialized trading firms that was to become the general trading companies (Yonekawa, 1985). This had historical antecedents in the growth of trading companies, managing agencies, consulting engineers and shipping companies in Great Britain in the late nineteenth and early twentieth century (Wilkins, 1986b). The advent of the Japanese general trading companies—the sogo shosha—engaged in the import and export of a variety of commodities on a global scale (Yonekawa, 1985) supported by the development of their auxiliary businesses in shipping and insurance and close ties with banks implied that the responsibility for the bulk of the expanding volume of Japan’s international trade fell increasingly in their hands. Their large size was in contrast to the numerous domestic firms of small size whose international trade it handled. Thus, the development of an indigenous international business infrastructure in Japan implied that production and trade was conducted at least initially by two different companies, the domestic-based manufacturing companies and the general trading companies, whose business relationships was of mutual interdependence. The large Japanese trading companies with an expertise in international trade did not have specialized knowledge of the production of the various goods that constituted their trading business, while on the other hand each of the numerous small-sized manufacturing companies had extensive production experience but no international business experience. In later years, trading companies not only promoted the trade of manufacturing companies but also often acted on their behalf abroad by establishing small plants or joint ventures with Japanese producers and with nationals in host countries. The extreme example is provided by Naigaiwata Company that originated as a trading company in its company’s history but integrated into domestic production in cotton spinning and then eventually established international production in that industry, thus developing to become a ‘classic’ MNC. In time, Japanese manufacturers bypassed the trading company and acted on their own in international production. Thus, two major types of Japanese firms expanded overseas (Wilkins, 1986b).
The above historical account of Japanese economic development explains the dominance of emergent Japanese FDI in the services sector, particularly in trading and in complementary services in support of trade such as banking, marine insurance and transportation equipment such as shipping and railroads (see Sekiguchi, 1979; Tsurumi, 1976). Nevertheless, the foundations of Japanese FDI in manufacturing and resource extraction had already been laid in the period prior to 1914. The earliest Japanese FDI were in geographically close and relatively familiar regions. Of the estimated Japanese foreign investments (in the form of both FDI and portfolio) in 1914 of between $227 and $296 million and of which an overwhelming proportion was FDI, some 70 per cent was directed to China (including Manchuria). This was encouraged by the Shimoneseki Treaty concluded between Japan and China in 1895 which permitted Japan to manufacture in Chinese treaty ports for the first time (Wilkins, 1986b). The second-largest host country prior to 1914 was the United States which accounted for some 10 per cent of Japanese FDI. Japanese FDI was also present elsewhere in Asia, though not as large as in China. For example, there were sizable Japanese investments in banking, trade and shipping facilities, as well as in railroads and certain agricultural ventures in Korea well before it became a Japanese colony in 1910, and investments in that country grew after colonialization (Duus, 1984). The Yokohama Specie Bank, the Nippon Yusen Kaisha Shipping Company and the trading companies—Mitsui & Company, the Naigaiwata Company and Japan Cotton Trading Company—also established branches in India (Wilkins, 1986b).

The following sections which look at these important industries in the history of Japanese MNCs show the close link of trade and outward FDI in the international business of Japan made responsible by the cooperative effort between Japanese manufacturers, the trading companies, the shipping, banking and insurance enterprises facilitated by the strong role of the Japanese government. The four most significant Japanese companies involved in international business before 1914 were Mitsui Bussan (trading), Yokohama Specie Bank, Nippon Yusen Kaisha (shipping) and Tokio Marine Insurance (Wray, 1984).

**Trading FDI prior to 1914**

The Mitsui Company was one of the traditional Japanese merchant companies whose origins can be traced to cloth trading in the late seventeenth century (Yonekawa, 1985). Its foreign trading arm, Mitsui Bussan established in 1876, was one of the pioneering Japanese companies that developed a sizable trading business in China prior to 1914. Mitsui Bussan opened its first overseas branch in Shanghai in 1877—a year after its foundation—for the initial purpose of facilitating the sales of Japanese exports of coal in China, particularly to Jardine, Matheson & Company and Butterfield & Swire, the British trading companies that were its principal customers. By 1886 the trading functions of the Shanghai branch of Mitsui Bussan was expanded to include the importation of Chinese raw cotton for the Osaka Spinning Mills closely associated with the company, as well as re-oriented to the sales of Japanese cotton yarn and fabrics in China. It also established offices with trading interests in Hong Kong, Paris, Milan and New York. The New York
office handled Japanese exports of raw silk to the United States as well as Japanese imports of raw cotton, railroad equipment and machinery from the United States. On the basis of its New York office and the wholly owned subsidiary it established in Houston in 1911—the Southern Products Company—to facilitate the flow of Japanese imports of American raw cotton, Mitsui Bussan came to handle more than 30 per cent of the raw cotton imported into Japan from the United States by 1914. It was also responsible for some 33.6 per cent of Japanese exports of silk to the United States (Wilkins, 1986b). Before 1914 Mitsui Bussan had more than 30 branches in Asia, Europe, Australia and the United States, in addition to their manufacturing affiliates in China (Jones, 1996). The trading interests of Mitsui Bussan across the world was facilitated by its ownership of a shipping fleet, supported by chartered ships from the government-controlled Nippon Yusen Kaisha Shipping Company (Mitsui & Co., 1977).

In a similar objective to facilitate Japanese imports of American raw cotton, the Japan Cotton Trading Company also established a subsidiary in Fort Worth in 1910 and the Gosho Company opened an office in San Antonio in 1913. Thus, all the three major Japanese trading firms participating in the raw cotton trade between Japan and the United States had Texas-based offices before the First World War. Most Japanese trading companies were also involved in facilitating the growth of exports from Japan and China to the United States such as, for example, medicinal and aromatic products (Wilkins, 1986b).

*Transportation (shipping and railroads) prior to 1914*

Closely related to the emergence of Japanese general trading companies prior to 1914 was FDI in transportation. The investments in shipping constituted not only the acquisition of ships which enabled Japanese companies to assume importance in certain international shipping routes at the expense of foreign shipping companies. More important from the viewpoint of FDI was the establishment of branch offices, wharves and warehouse facilities in important trading ports in China, the United States and Europe. The investments in shipping were undertaken by both specialized shipping companies as well as by trading companies that had auxiliary investments in shipping.

Japanese companies began to assume importance in the shipping route between Japan and China when Mitsubishi initiated a weekly shipping service between Yokohama and Shanghai in February 1875. This rapidly developed when in October 1875 Mitsubishi acquired four ships from the Pacific Mail Steamship company which abandoned the Yokohama to Shanghai shipping service in favour of its new rival (Wray, 1984). The first shipments of coal of Mitsui Bussan to China was on board Mitsubishi ships, but even after the company had established its own sailing ship company to handle freight between domestic ports and China and Korea, it still continued to use Mitsubishi shipping vessels (Wilkins, 1986b).

The establishment in 1885 of Nippon Yusen Kaisha (NYK), the shipping company in which the government had a large interest, led to the diminution in importance of Mitsubishi as a shipping company. Although NYK was organized at origin as a domestic coastal shipping company, it had established three major shipping services to nearby
areas: Shanghai, Vladivostok and Inch’on to advance the trading interests of Japan. It fulfilled an important role in the China trade as it developed close ties with the Japanese cotton spinners in the late nineteenth and early twentieth century.

Other important Japanese shipping companies with a significant role in Chinese trade was Osaka Shōsen Kaisha (OSK) organized in 1884 which initiated the Shanghai-Hankow shipping service in January 1898 with a subsidy from the Japanese government and thus became the first major Japanese shipping company to operate on the Yangtze River. With the subsequent participation of NYK in this shipping service, the Nisshin Kisen Kaisha was formed in 1906 to organize Yangtze river shipping under the dominant influence of the two Japanese shipping companies operating the route, the OSK and NYK. The growth in importance of Japanese shipping companies was such that although 52 per cent of the tonnage of the foreign ships calling at Chinese ports were accounted for by British shipping companies by 1913, Japanese companies accounted for almost 32 per cent (Wray, 1984).

The importance of Japanese shipping companies in trans-Pacific trade also became well established by 1914. The passenger ships of NYK which made 24 trips between Japan and Hawaii in the years between 1885 and 1894 was crucial in the delivery of 27,000 Japanese immigrants. The cargo ships of NYK, which was already playing a key role in the provision of shipping services between Yokohama and Shanghai, broadened its shipping services to the United States indirectly by through-freight agreements it concluded with the Pacific Mail Steamship Company and the Occidental & Oriental Steamship Company in May 1886 which provided connecting shipping services between Yokohama and San Francisco. Such arrangements were maintained until 1896 when NYK made arrangements with Great Northern Railroad which enabled it to quote through-freight rates for shipping between Asia and the American midwest and onwards to the American east coast (Wilkins, 1986b). By 1914, Japanese shipping companies were providing regular shipping services to Seattle (operated by NYK), San Francisco (operated by Toyo Kishen Kaisha) and Tacoma (operated by OSK), and the opening of the Panama Canal on August 1914 served to expand the growth opportunities for Japanese shipping companies.

The development of shipping services to Europe was regarded as more important than that of the trans-Pacific route as seen by the much larger annual government subsidies received by NYK to build its shipping routes to Europe. Thus, by 1903 NYK had 12 ships providing shipping services to Europe and only six ships providing shipping services to the United States (Wray, 1984). The growth and development of Japanese shipping companies enabled these companies to be responsible for 51 per cent of the ships entering Japanese ports by 1913, and to account for 52 per cent of Japanese exports and 47 per cent of Japanese imports (Wilkins, 1986b).

Apart from shipping as a form of transportation to support trade, the Japanese government also made substantial investments in the development of the South Manchurian Railway in 1906 (Remer, 1933; Hou, 1965). Indeed, some 36 per cent of the total Japanese FDI in China in 1914 was in transportation, chiefly in the South Manchurian Railway. This railway played an important role in the development of the richest coal mines in Manchuria located in Fushin, and in the transport of coal to Japan.
Unlike in the case of the United States or the United Kingdom, domestic banks in Japan played a strategic role in the expansion of Japanese business abroad. In no way is this more evident than in the case of the Yokohama Specie Bank whose history was associated intimately with the growth of Japanese business worldwide. The development by the bank of an extensive network of offices, branches and sub-branches worldwide and its role in the intermediation of the flow of foreign capital for use in Japan or in the various business activities of Japan abroad enabled it to play a key role in the growth of Japanese trade and FDI. The bank provided general information, assisted in foreign exchange activities, provided trade financing and even long-term financing of the raw material procurement needs of Japanese industry. An important example of the latter was the loans extended to the Hanyehping Coal and Iron Company to extract coal in Manchuria. In its establishment of a foreign office in New York in 1880, the very same year of its foundation, this government-supported bank became an international bank at origin. The bank then set up a representative office in Shanghai in 1893 at the request of Japanese businessmen to provide banking services to support the triangular cotton trade between Japan, India and China. It also established a branch in Hawaii and San Francisco in 1899, a sub-branch in Los Angeles in 1913 and an important office in London (Wilkins, 1986b). It was ubiquitous in Japanese international business and played a key role in supporting its expansion in a manner similar to German banks but dissimilar to any American or British bank in their respective roles in supporting the growth of German, American and British business abroad (see Chapters 2, 3, 7 and 8 of this book).

The role of the Yokohama Specie Bank in aiding the expansion of Japanese international business was further facilitated by its close business relationships with Mitsui & Co. and with NYK, Japan’s largest shipping enterprise (Mitsui & Co., 1977; Wray, 1984).

The Industrial Bank of Japan organized in 1900 similarly helped to finance government-sponsored investment ventures, extended loans to the Tayeh mines that became a part of the Hanyehping Company complex and raised finance for the South Manchurian Railway and other Japanese investments in China. Indeed, of the 294.4 million yen in foreign portfolio capital underwritten by the bank between 1902 and 1913, 46 per cent was exported as semi-governmental direct investment to China and Korea, mainly. By 1902 the Yasuda Bank, a private Japanese bank, also had Chinese interests (Patrick, 1967).

Other banks that established foreign branches in countries other than China was the Dai Ichi Ginko which by opening a branch in Korea in 1878 became the first Japanese bank to branch abroad. An Osaka-based bank also established a branch in Formosa (now Taiwan) before it became a Japanese possession in 1895, and the Bank of Japan followed suit in 1896. The Bank of Taiwan established three years later by the Osaka-based bank in Taiwan had in turn established by 1914 branches in San Francisco, Manila, Singapore, Calcutta, Bombay, 7 points in China and 14 points in Japan and its dependencies (Wilkins, 1986b).

In the insurance industry, at least one Japanese company, Tokio Marine Insurance
Company Ltd, invested in the United States prior to 1914. The company formed part of a closely integrated network of banks, shipping and trading companies associated with Japanese—American trade (Wilkins, 1986b).

**Manufacturing FDI prior to 1914**

The development of the domestic textiles industry with the aid of British technicians, technology and machinery played an important role in the emerging pattern of Japanese foreign investment in manufacturing. As the Japanese cotton textile industry developed, interest in export markets grew and Japanese trade in cotton manufactures came to be very important and China became an integral trade partner. Between 1888 and the time of the First World War Japan was an importer of raw cotton from China and an exporter of cotton yarn and cotton cloth to China. In 1913, exports of cotton manufactures and yarn totalled 33.9 per cent of Japanese exports to China and 11.7 per cent of total Japanese exports (Remer, 1933).

The impetus to switch from exports to international production stemmed from the Shimoneseki Treaty of 1895 which allowed foreigners to manufacture in Chinese treaty ports for the first time, as previously mentioned. This prompted Jardine Matheson & Company, the British trading company, to establish at once the Ewo Cotton Spinning and Weaving Company in Shanghai and three foreign textile firms from Great Britain, the United States and Germany followed suit (Wilkins, 1986b). The establishment of these foreign-owned manufacturing facilities in China combined with the incipient growth of Chinese investments in spinning mills, and the sale in China of cheap Indian yarn posed a threat to the continued growth of the Chinese export market for both Japanese spinners and trading companies. In addition, much of the Japanese FDI in China in the early twentieth century may have been made initially to ascertain local costs of production in China and to keep close watch over the Chinese textile market. The determinants of the initial international production activities of Japanese companies was peculiar to Japanese MNCs and not observed in the case of the early manufacturing MNCs based in the United States, the United Kingdom and Germany in which international production was spurred by the inability of important foreign markets to be supplied, or supplied as cheaply, through exports owing more often than not to tariff barriers imposed by foreign governments (see Chapters 2, 7 and 8).

Not only were the determinants of the initial international production activities of Japanese companies peculiar to Japanese MNCs but more fundamentally the fact that Japanese MNCs emerged in simple, labour intensive and technologically standardized manufacturing activities directed towards developing countries is a feature that has not been observed in the emergence of American, Swedish, British or German MNCs. The divergent growth pattern of Japanese FDI in manufacturing can be explained by the earlier stage of development in which Japan entered international production. In the late nineteenth and early twentieth century when Japanese manufacturing MNCs emerged, textiles was the dominant domestic industry in Japan and consequently was the industry in which Japanese manufacturing MNCs initiated international production. The theoretical implication of these facts is that MNCs do not always emerge in
technologically advanced industries organized in an oligopolistic market structure with firms that have highly developed firm-specific advantages.

International production by Japanese firms in textiles which served to substitute for exports from Japan to China was pioneered by two Japanese spinners that established plants in Shanghai. These initial ventures failed on account of inadequate evaluation of the market, ineffective management and inland taxes on raw cotton (Kuwahara, 1982; Wilkins, 1986b). The earliest sign of a more successful Japanese FDI in the industry came in 1902 when J.Yamamoto, the Shanghai branch manager of the merchant company, Mitsui & Co., purchased a Chinese cotton mill and re-named it the Shanghai Cotton Spinning Company Ltd. The company acquired another Chinese cotton mill, the Santai Cotton Spinning Company Ltd., four years later. On 5 December 1908 Mitsui & Co. organized a new local subsidiary, the Shanghai Cotton Manufacturing Company, which owned the two spinning mills and placed the new subsidiary under the charge of J.Yamamoto. The separate management of the subsidiary enabled Mitsui & Co. to combine the benefits of earning high commissions from the trade intermediation between buyers and sellers while not being involved directly in cotton spinning. The Shanghai Cotton Manufacturing Company proved eventually to be a very profitable venture. By 1914, Mitsui & Co. had also established 886 looms, and thus participated in weaving as well as spinning in China (Yasumuro, 1984).

Another example of a trading company whose initial interest in China was in the export of raw cotton from China to Japan but integrated into international production through acquisition was the Japan Cotton Trading Company that had a cotton spinning mill in Shanghai by 1914 (Wilkins, 1986b). The process of expansion of the international production activities of the Naigaiwata Company—which was at origin a trading company with a similar interest in the raw cotton trade between China and Japan—was different. The company acquired two spinning companies in Japan in 1909, and established itself as a domestic spinner in Japan before it began to manufacture in China (Yasumuro, 1984). While it was not one of the largest spinning establishments in Japan, it built a new and powerful spinning mill in Shanghai using its own designs, equipped it with almost advanced machinery and managed it by a Japanese staff sent from the parent company. The investments was thus distinctive in its role as the first Japanese spinner that constructed its own mills abroad as opposed to acquiring existing foreign mills typical of the form of investment of the trading companies, and also as the first Japanese spinner to be a successful manufacturer in China. By 1913, the Shanghai mill of the Naigaiwata Company was far more efficient than any Chinese-owned mill owing to the company’s management knowledge, experience in buying raw cotton and practice of blending raw cotton from different sources in order to lower the costs of raw materials (Kuwahara, 1982). By 1914, the Naigaiwata Company ranked nineteenth among the 100 largest Japanese mining and manufacturing companies based on the size of its Japanese and Chinese assets. Indeed, the company was the most successful of the early Japanese investors in China (Wilkins, 1986b).

The success of the Japanese textiles investments in China can be attributed to several factors. Perhaps the most important was the composite technologies developed by Japanese companies from the fusion of imported and domestic R&D. In this respect,
Great Britain played a crucial role not only in the development of the Japanese textile industry, but also in the success of transplanted Japanese spinning mills and looms in China as Japanese companies brought as part of their investments British technology and equipment. The looms installed in Chinese mills were made by Platt Brothers in Britain (Kuwahara, 1982). Combined with this composite technologies of Japanese companies was their organizational skills in production harnessed in the domestic textiles industry which were readily applied to their foreign plants in China. The Japanese staff adapted rapidly to living and working in China, probably owing to the high degree of cultural and linguistic affinities between the two countries (Wilkins, 1986b).

The proliferation of Japanese spinning mills in China enabled Japan to account for an increasing share of spindles and power looms in that country. Thus, whereas 63 per cent of the spindles in China in 1897 were Chinese owned and 37 per cent Western owned, the ratios were 60 per cent Chinese owned, 27 per cent Western owned and 13 per cent Japanese owned by 1913. For power looms, the ratios were 70 per cent Chinese owned and 30 per cent Western owned in 1897, but by 1913 the ratios were 56 per cent Chinese owned, 25 per cent Western owned and 19 per cent Japanese owned (Hou, 1965).

Although Japanese companies had not yet dominated the Chinese textiles industry, Japanese mills were already displaying some level of superiority over both Chinese and British mills (Chao, 1977). In the early twentieth century, Japanese firms in the domestic cotton textile industry of China exhibited excellent management skills compared to other foreign companies, demonstrated marketing strengths owing to the direct involvement of trading companies in FDI or the earlier trading company experiences of many Japanese manufacturing companies, and displayed superiority in raw material procurement. As mentioned, many Japanese companies have established the practice of direct purchase of raw cotton from growers in India, China and the United States; this plus the technologies in blending raw cotton from their different sources served to improve the quality while lowering the cost of raw material supplies. Indeed, the Japanese investments in Chinese spinning and weaving prior to the First World War were harbingers of far larger and more important ones to follow (Wilkins, 1986b).

Although textiles was the most important manufacturing industry of Japanese firms in China, there were other manufacturing industries that preoccupied Japanese companies in China even though the size of their investments in these other industries were far less significant than in textiles. This included, for example, the manufacture of bean oil by Nisshin which founded a mill in Dairen, Manchuria in 1907 for 3.5 million yen and the manufacture of flour by the Mitsui & Co. in Shanghai and by the South Manchuria Milling Company in Tiehlin, Manchuria founded in 1906. There were also five match manufacturing plants financed by Japanese investments in Manchuria and in north, central and south China in 1914 (Remer, 1933).

The cumulative growth of Japanese investments in China enabled Japan to account for the largest number of foreign and Sino-foreign manufacturing and mining firms established in China between 1895 and 1913. However, although Japan was responsible for 49 of 136 such firms, firms from the United Kingdom accounted for a significantly larger share of 48 per cent of the value of initial capitalization of the foreign and Sino-foreign manufacturing and mining firms established in China in that period compared to
that of Japan of 25 per cent (Wilkins, 1986b).

Last but not the least, mention should also be made in the history of Japanese manufacturing FDI of the one-of-a-kind investment in 1892 of Kikkoman in a factory in Denver, Colorado to produce soy sauce for Japanese emigrants (Kinugasa, 1984).

**Resource-based investments prior to 1914**

Although far less important than Japanese FDI in trade-related services and manufacturing, resource-based FDI as a means of obtaining scarce natural resources needed by domestic industries of Japan was of some importance in the period prior to 1914. The most significant of these Japanese resource-based FDI was that of Hanyehping Coal and Iron Company which mined the rich coal mines of Fushin, Manchuria on the basis of supporting investments by the Yokohama Specie Bank that extended long-term loans to finance the investments in resource extraction and railroads (the South Manchurian Railway earlier mentioned) to facilitate the development of the mines and the transport of coal and iron ore required by the Japanese government-owned Yawata Iron and Steelworks in Kyushu. Indeed, half of the 2.5 million long tons of coal produced by the Fushin mines in 1913–14 was exported to Japan (Wilkins, 1986b).

**The growth of Japanese FDI in the inter-war period**

The inter-war period marked the continuing growth in importance of Japanese FDI in the trading and manufacturing sectors.

**Trading FDI in the inter-war period**

The 1920s was a decade of great difficulties for Japanese trading companies. Among the large trading firms that became insolvent during this period were Mogi Shoten, Furukawa Shoji, Kuhara Shoji, Takada Shokai and Suzuki Shoten (Yamazaki, 1989). Those trading firms which escaped bankruptcy often suffered from wide fluctuations in their incomes or from stagnation at low income levels. Nevertheless, other large trading companies—particularly the general trading companies—continued to prosper in the inter-war period.

The continued growth in the success of general trading companies can be explained in the context of the zaibatsu business group of which these companies are often but not always a part (Yonekawa, 1985). If the general trading companies developed from each zaibatsu business group’s selling department, as in the case for example of Mitsubishi and Sumitomo trading companies, the industrial companies in the zaibatsu relied entirely on their member trading companies for the foreign procurement of vital raw materials at the lowest cost and for the foreign sales of a diversified product line in the most lucrative export markets. The general trading companies were thus a principal means to overcome the scarcity of raw materials in Japan and the need to sustain the growth of exports.

Such general trading companies were able to fulfil such functions effectively and
profitably by internalizing some functions of international trade which decreased the risks of international trade transactions. Apart from internalizing vital functions of international trade, the general companies also developed new organizational structures and management systems that combined decentralized divisional structures along product lines and geographical areas with strong centralized control. The products that the general trading companies handled were carefully selected to include those in which an effective control could be attained from suppliers to customers either through the supply of funds, sole agency contracts, and/or investments in suppliers. The most important trading services these firms facilitated were the import of raw materials from large foreign suppliers to large local customers; the import of highly mechanized high value products, particularly machinery and technology, for the member companies of zaibatsu; and the export of undifferentiated non-perishable miscellaneous goods to foreign markets that were eventually sold through various channels. But apart from being part of a large zaibatsu group, the general trading company also played a vital role in the consolidation of a large number of small manufacturers in both Japanese and foreign markets into groups of large transaction units, and sold their products either to American brokers or Japanese importers who in turn sold through various marketing channels. Through an effective system of internalized trade transactions supported by an organizational structure with centralized control, Japanese general trading companies have succeeded in dominating trade flows between the United States and Japan before the Second World War, in spite of the restrictions imposed by the American government and strong competition from established American and European business interests (Kawabe, 1989).

Among the most successful general trading company in the inter-war period was Mitsui Bussan that continuously maintained high profit rates in an era of insolvency of other trading companies. Unlike other general trading companies that developed from each zaibatsu business group’s selling department, the emergence of the Mitsui Bussan as an offshoot of the Mitsui Company and its eventual growth helped in the formation of the Mitsui group of companies rather than vice-versa. The formation of Mitsui Bussan as a managerial enterprise separate from the Mitsui Company enabled it to develop free from most restraints that plague more traditional mercantile business (Yonekawa, 1985). As mentioned in the previous section, Mitsui Bussan was not only a general trading company but was also involved in auxiliary investments in support of their main trading businesses which included not only marine transportation and shipbuilding but also agencies for ocean transport and insurance, and a holding company. The superb business performance of Mitsui Bussan during the 1920s was attributed to a number of closely inter-related factors. First, the company based a dominant proportion of their profits in the 1920s on trade in a wide range of staple commodities to include coal, machinery, raw silk, sugar, metals, timber and cotton that were closely linked to key resource-based Japanese industries that were experiencing rapid growth during the 1920s. The diversification of Mitsui Bussan in all these main commodities linked to their monopolistic transactions with the manufacturing companies belonging to the Mitsui zaibatsu enabled it to attain economies of scale in commodity trade. The second element of its success was their characteristic strategy of developing strong business linkages through sole agency contracts with the leading manufacturing companies both in Japan and abroad which
helped to sustain its dominant share in each of the commodity markets. Their monopolistic transactions in Japan with the manufacturing companies of the Mitsui zaibatsu which gave Mitsui Bussan sole rights to sell the products manufactured by these companies and to buy the raw materials these companies required was further strengthened by its position in most cases as the exclusive agent for leading foreign manufacturers. Mitsui Bussan thus enjoyed economies of scale in trade in a wide range of products which enabled it to maintain a position of strength vis-à-vis its competitors. The third element of its success was its large number of talented and highly educated employees and abundant capital resources. All these factors combined with an organizational structure compartmentalized along lines of commodities it handled enabled Mitsui Bussan to occupy an advantageous position in each commodity trade which contributed to its stable and high level of profits (Yamazaki, 1989; Yonekawa, 1985).

Manufacturing FDI in the inter-war period

The inter-war period described the continuing expansion of MNCs based in the Japanese cotton industry. Indeed, the amount of Japanese FDI in manufacturing in the period prior to 1914 was relatively small in relation to that in the inter-war period. The growth was such that for the first time ever in 1919 the number of Japanese-owned cotton spindles in China exceeded those of Western-owned mills and by 1936 approximately 44 per cent of the cotton spindles in China were Japanese owned (Chao, 1977; Remer, 1933).

In 1914, about 40 per cent of the total sales of the major Japanese cotton spinners was generated from exports which was directed almost completely towards China. Japan had attained a dominant position in the cotton imports of China, accounting for 55 per cent of total imports of cotton yarn in 1914 and 57 per cent of total imports of coarse cotton cloth (Kuwahara, 1989). At the same time, the Chinese modern cotton industry began to expand its production capacity on a large scale during the First World War enabling the country to decrease their imports from Lancashire and to increase the price of cotton goods considerably (Kuwahara, 1982). The rapid growth in the self-sufficiency of China in the production of coarse cotton yarns and coarse cotton cloth had a deleterious impact on the Japanese cotton spinning industry which had established a dominant position in the Chinese market in 1914. Thus, unlike in the period before the 1914 when the growth of foreign manufacturers in Chinese treaty ports posed the threat to the export growth of Japanese cotton spinners in China, in the period during and after the First World War the threat to export growth of Japanese cotton spinners was presented by the emergence and rapid expansion of the indigenous cotton spinning industry. To halt the decline in their market shares acquired through rapid export growth, most of the major Japanese cotton spinners established local production bases in China for the first time in the immediate period after the First World War. The four largest Japanese cotton spinning companies that initiated FDI in China in this period were the Toyo Cotton Spinning Company, the Kanegafuchi Cotton Spinning Company, the Dainippon Cotton Spinning Company and the Fuji Gasu Cotton Spinning Company. These four firms accounted for 58 per cent of all spindles installed in Japan in 1918 (Kuwahara, 1989). Since coarse cotton yarns could
only be sold in the Chinese market, most of the local mills established by the large Japanese cotton spinning companies produced coarse cotton yarns. Conversely, since alternative markets for coarse cotton cloth could be found outside China, there were far fewer local mills of Japanese companies that produced coarse cotton cloth.

International production financed by FDI was the common strategy adopted by the four major Japanese cotton spinning companies to defend their market shares in China. Once a major Japanese cotton spinner embarked on the construction of local cotton spinning mills, a ‘bandwagon’ effect described the subsequent growth of investments of other major Japanese cotton spinning companies that displayed a follow-the-leader behaviour typical of firms in industries organized in an oligopolistic market structure (Knickerbocker, 1973). Nevertheless, there were two other equally important strategies employed by the major Japanese cotton spinning companies in response to the problem of excess capacity posed by the new threat to the sales of coarse cotton yarn and coarse cotton cloth in their major export market. The first was the diversification of products in the home market. This came in the form either of increasing the amount of weaving looms as a means of increasing consumption of coarse cotton yarn within the company or increasing the production of higher value added cotton goods such as middle-count yarns at the expense of coarse cotton yarns. This was the other strategy employed by the Kanegafuchi Cotton Spinning Company apart from FDI. The second other strategy was the diversification of export markets. This was the strategy employed by the Toyo Cotton Spinning Company in light of the increase of Chinese output of coarse cotton yarn and coarse cotton cloth which had a devastating effect on the company’s exports to China. The company diversified their export market rapidly after the First World War away from China towards countries of South East Asia, the Middle East and Africa that had large markets for coarse cotton cloth. By 1921, 72 per cent of company exports of cotton sheeting was destined to export markets outside China, while in China itself the company increased exports of fine cotton cloth (Kuwahara, 1989).

The growth of Japanese FDI since the Second World War

The period since the Second World War was associated with the rapid domestic industrial restructuring of the Japanese economy and the expansion of Japanese FDI in manufacturing. In this period more than ever before, Japan’s outward FDI was a crucial instrument or catalyst for the rapid process of domestic industrial upgrading (Ozawa, 1985; Kojima and Ozawa, 1985). The rapid industrial transformation from primary to secondary sectors, and within the secondary sector from labour intensive light manufacturing to heavy and chemical manufacturing to knowledge intensive, assembly-based fabricating industries have led to a swift rise in labour productivity and wages at the end of each phase. Shifting patterns of trade competitiveness and sectoral resource allocation have been the dominant features of this process, and the advance of Japanese manufacturers overseas has been influenced to a significant degree by these changes (Ozawa, 1985).

Ozawa (1991) analysed the industrialization process of the Japanese economy since the
Second World War in four sequential stages that correspond with equivalent phases or waves in the growth of Japanese cross-border production.

**Phase I** Expansion of labour intensive manufacturing in textiles, sundries and other low-wage goods in 1950 to the mid–1960s. This industrialization phase corresponded with the ‘elementary’ stage of Japanese offshore production in Heckscher-Ohlin industries.

**Phase II** Scale economies-based modernization of heavy and chemical industries such as steel, aluminium, shipbuilding, petrochemicals and synthetic fibres in the late 1950s to the early 1970s. This industrialization phase corresponded with the Ricardo-Hicksian trap stage of Japanese multinationalism associated with the non-differentiated Smithian industries.

**Phase III** Assembly-based, sub-contracting dependent, mass production of consumer durables such as cars and electrical/electronics goods in the late 1960s to the present. This industrialization phase corresponded with the export substituting-cum-surplus recycling stage of Japanese multinationalism associated with the differentiated Smithian industries.

**Phase IV** Mechatronics-based, flexible manufacturing of highly differentiated goods involving the application of computer-aided designing (CAD), computer-aided engineering (CAE) and computer-aided manufacturing (CAM), along with technological breakthroughs such as high definition TV, new materials, fine chemicals and more advanced micro-chips in the early 1980s onwards. While Ozawa (1991) did not identify the corresponding phase of Japanese multinationalism associated with this industrialization phase as he regarded this type of Japanese FDI to be still speculative, this fourth phase of Japanese multinationalism which has yet to evolve fully in the future can be labelled as the robotics and new materials stage of Japanese multinationalism associated with the Schumpeterian industries.

The following sections examine more closely each of the four major phases or waves in the growth of Japanese crossborder production in relation to the sequential phases of Japanese industrial development in the era since the Second World War.

**Phase I The ‘elementary’ stage of Japanese offshore production in Heckscher-Ohlin industries**

The first wave of Japanese FDI was associated with the continuing strengths of Japanese industry in traditional labour intensive light manufactures, notably textiles and clothing and other low-wage goods whose trade competitiveness derived from the presence in Japan in the early post-Second World War period of both an abundant labour force at relatively low cost as well as an undervalued national currency. Indeed, by 1950, Japan has sustained a comparative advantage in the textiles industry for more than 70 years.10

The emergence of the ‘elementary’ stage of Japanese offshore production in labour intensive industries for which Japan in the early post-Second World War period continued to have a comparative advantage was influenced largely by the new Japanese industrial and trade strategy adopted in the 1950s to develop modern and capital intensive heavy and chemical industries as domestic infant industries protected by import
substitution industrialization. Such process of domestic industrial upgrading has been made possible by the continual acquisition and successful absorption of new and advanced foreign technology. Such advanced foreign technologies from the West which Japan was eager to absorb was obtained mainly in the form of licensing agreements as the Japanese government was always mindful of the possible domination of Japanese industry by foreign MNCs through inward FDI which it thus restricted. As a result, foreign licensing agreements became a far more important vehicle relative to inward FDI in acquiring new and advanced industrial knowledge that revolutionized Japanese industry.

The acquisition of advanced foreign technologies mainly through licensing agreements in the period between the late 1950s and the early 1970s was geared to support the growth and development of the domestic heavy and chemical industries in the producer goods sector. Four industries accounted for the 70.6 per cent of the 1,029 technology import contracts that the government approved during the 1950s: non-electric machinery, electric machinery, chemicals, and metals (including steel) (Ozawa, 1985). Technology imports were complemented by indigenous efforts at adaptive R&D which enabled the commercialization of foreign industrial technologies and their significant improvement, particularly in production processes. The growth of new capital investments in new production facilities in the modern heavy and chemical industries by manufacturers and closely related firms through business linkages engendered by the importation of advanced technologies and complementary R&D efforts of Japanese firms contributed to the success of efforts to structurally upgrade Japanese industry. Domestic production capacities increased which was initially geared to meet the rising domestic demand for such products away from imported manufactured goods, and the further growth of domestic production and increased competitiveness led to the growth of exports by Japanese firms in more modern manufactures.

The success of domestic industrial restructuring towards modern capital intensive heavy and chemical industries at the end of the 1960s enhanced labour productivity owing to high capital to labour ratios and this perpetuated a continuous cycle of rising wages (Cohen, 1975; Kojima, 1978; Ozawa, 1979b). In combination with the sharp upward revaluation of the yen in 1971, it led to the weakening of the traditional labour intensive sectors. This adversely affected the textiles industry that was the mainstay of the Japanese economy over more than 70 years, but it also affected those small- and medium-sized enterprises producing a whole range of other labour intensive products.

In light of the rapid loss of comparative advantage of Japan as a location of traditional labour intensive light manufacturing production, Japanese manufacturers in those industries were faced with three options: upgrade their products qualitatively, diversify into new industries or shift production to labour abundant developing countries suitable for labour intensive manufacturing (Ozawa, 1985). The three options were not mutually exclusive so that while many firms chose the option of international production, many also sought to pursue the option of upgrading the quality of their labour intensive products and some diversified into new industries helped by the government emphasis on domestic industrial upgrading in more modern manufacturing industries.

The growth of Japanese FDI in this phase was critically determined by the...
liberalization of Japanese government policy on outward FDI away from a ban in place for much of the 1940s and the tight regulation in place for some two decades since the implementation of the Foreign Exchange and Trade Control Act of 1949. The latter was implemented in light of the persistent trade deficits of Japan and the emphasis placed on achieving rapid industrial growth of the domestic economy. The substantial increases in domestic labour costs in the late 1960s, the appreciation of the yen, the emerging balance-of-payments surpluses and the growing natural resource requirements of a rapidly expanding resource scarce industrial economy contributed to the gradual liberalization of controls over outward FDI between 1969 and 1978 (Randerson and Dent, 1996).

Thus, the ‘elementary’ stage of Japanese offshore production took place in a major way between 1971 and 1973, with the investments in 1972 and 1973 alone more than doubling the existing stock of Japanese FDI. This stage of Japanese overseas production was associated with the transfer of standardized, low technology, labour intensive production from Japan to developing countries such as Taiwan, South Korea, Hong Kong, Thailand and other Asian economies in close geographical proximity and had an abundant labour supply (Ozawa, 1991). China did not seem to be as important a host country in this period in the way that it was in the period prior to 1914 and in the inter-war years. This is confirmed by Vaupel and Curhan (1974) who indicated that of the 105 Japanese manufacturing plants established abroad in the period between the end of the Second World War and the early 1970s, 98 plants were located in developing countries, mainly in the Asia and Pacific region. Some one-third of the overseas FDI in manufacturing were made by small- and medium-sized enterprises, with 88 per cent of these small-scale investment ventures concentrated in other Asian countries (Ozawa, 1985). In many instances, the general trading companies took the initiative to shift the production activities of small- and medium-sized enterprises by investing jointly and offering organizational, financial and managerial assistance to implement overseas production and marketing. Small firms that invested abroad also availed of the overseas scanning services provided by the government’s Overseas Trade Development Association (Roemer, 1976; Ozawa, 1979a). The four most labour intensive industries transferred abroad by a large number of small- and medium-sized enterprises were textiles, metal products, electrical machinery and other miscellaneous manufactured products. These industries accounted for 65.5 per cent of the total number and 55.4 per cent of the total value of new Japanese overseas investments made in 1972 and 1973 (Ozawa, 1985).

A formal analysis of the industrial advantages of Japan between 1965 and 1975 showed that the degree of innovation and the creation of technological ownership advantages as well as capital intensity exerted highly significant negative influences on Japanese FDI in manufacturing, while the skill level of managerial power had a significant positive effect. This contrasts sharply with the findings for Japanese exports of manufacturing which showed that the technological intensity and the skill level of production workers exerted highly significant positive influences, while capital intensity, skill level of managerial manpower and complexity of management exerted highly significant negative influences (Clegg, 1987). These findings of Japan’s comparative
advantage in exports of high-technology manufactured goods and international production in goods of low technology and low capital intensity that require high levels of managerial skills confirm at least during this period the normative conclusions of Kojima’s theory. During this period, the marked contrast in the type of production transferred abroad by typically small Japanese firms in standardized product and labour intensive industries and those with production located in Japan for export is a reflection of the reorganization of the location for production for different industries in line with Japan’s changing comparative advantage.

Phase II The Ricardo-Hicksian trap stage of multinationalism in non-differentiated Smithian industries

The second stage of outward FDI was associated with the substantial domestic expansion of heavy and chemical industries at the end of the 1960s which demanded natural resources that Japan lacked. The expansion of such domestic industries turned Japan, one of the world’s most resource-scarce countries, into one of the highest natural resource consuming nations. In this respect, trade continued to be assigned the primary role by Japanese industrial policy with outward FDI fulfilling a complementary or supportive role in respect of trade (Kojima 1973, 1978; Ozawa, 1979a, 1979b; Kojima and Ozawa, 1984). This explains why Japan became one of the world’s leading importer of many resources, accounting for about 40 per cent of the world’s imports of iron ore, 25 per cent of the world’s imports of coal and copper ores, 20 per cent of the world’s imports of bauxite and 10 per cent of the world’s imports of timber based on data contained in MITI (1982). These imports were financed by the growing exports of the heavy and chemical industries. Exports were also regarded as an important means to achieve scale economies and to reduce production costs—the important elements of competitiveness in these industries.

However, despite the emphasis placed on trade as an instrument of Japanese industrial policy, there were factors that threatened its growth. The first factor was that market failure of various forms implied that trade based upon arms-length transactions cannot always be relied upon to secure the vital natural resources and raw materials from abroad to support the expansion of domestic resource-consuming industries. The second factor was that the very growth of these heavy and chemical industries led to the shortage of industrial space and brought forth problems of pollution, congestion and ecological destruction. The oil crisis of the 1970s served to exacerbate the situation. Drawing on the analytical insights of Ricardo and Hicks in explaining the irremovable scarcity of land or labour as constraints in modern economic growth, Ozawa (1991) regarded this phase of Japanese FDI as a response to the Ricardo-Hicksian trap of industrialism. The resource scarcity of Japan, the inadequacy of imports to secure the natural resources from abroad to sustain domestic industrialization, the shortage of industrial space and the oil crisis of the 1970s which aggravated the comparative disadvantage of Japan in resource intensive and pollution-prone industries also constrained the economic growth of Japan.

Typical of the behaviour of Japanese firms throughout the course of its history, the response of Japanese firms to the economic difficulties of the time consisted of outward
FDI as a short-term solution combined with a continuing process of domestic industrial upgrading over the long term. Thus, while Japanese outward FDI continued to emphasize on trading to support the comparative advantage of Japan in the production of heavy and chemical products, outward FDI was also used to finance resource extraction to secure stable supplies of industrial raw materials (minerals, oil and other natural resources) in foreign countries (Ozawa, 1977, 1982). Thus, as much as 41.6 per cent of the total value of Japanese outward FDI at the end of March 1980 was in the tertiary (mainly trade-related commerce) sector and 23.1 per cent was in the primary sector (of which 2.6 per cent was in agriculture, fishery and forestry and 20.5 per cent in mining) (Ozawa, 1985). In addition, Japanese FDI in manufacturing continued to grow with the transfer overseas of some of the resource intensive and often pollution-prone industries. The demand for intermediate industrial goods associated with the rapid industrialization in the newly industrialized countries especially South Korea, Hong Kong, Singapore, Taiwan and Brazil provided an additional incentive to FDI by Japanese capital goods producers. In sum, Japanese outward FDI in this phase was an important means to overcome the Ricardo-Hicksian trap of industrialization and economic growth.

At the same time, the process of domestic industrial restructuring in Japan proceeded with new emphasis placed on the development of domestic industries that consumed less natural resources, were more environment friendly and had higher knowledge intensities. Assembly based and R&D intensive industries that produced higher value added goods as electronic goods, cars and machine tools began to emerge and rapidly became the ‘sunrise’ industries, while the conventional heavy and chemical industries began to recede as the ‘sunset’ industries (Ozawa, 1991).

Phase III The export substituting-cum-surplus recycling stage of Japanese multinationalism in differentiated Smithian industries

The growing competitiveness of Japanese firms in assembly-based, fabricating industries of high R&D intensities since the late 1960s derive from a pyramidal and multi-layered system of subcontracting that typically consisted of around a dozen major assemblers at the top that are served by a primary (first tier) subcontractors which are in turn supported by their own cohorts of secondary (second tier) subcontractors which in turn subcontract work to the next rung of subcontractors and so on. In this manner, a diverse range of input items are produced under the most cost-effective conditions using different factor intensities and wage structures. This subcontracting system became an important source of static and dynamic advantages to Japanese firms in the modern industries along with the widespread adoption of organizational technology (the just-in-time inventory system and total quality control); the fusion of imported and domestic R&D in new composite technologies; the feedback from domestic consumers that have exacting standards of performance, design and quality; and vigorous inter-firm competition (Ozawa, 1991).

Although the period since the late 1960s describes the significant increase of Japan’s share of world exports of manufactures, Japan improved her revealed comparative advantage in international export markets the most in electrical equipment and motor vehicles between 1974 and 1982, while her export position in the older industries of
chemicals, shipbuilding and textiles declined (Dunning and Cantwell, 1991). The substantial growth of Japanese exports of new assembly-based consumer durables had two important consequences. The first consequence was the rising tide of protectionism in export markets with the implementation of trade barriers on final goods combined with policies enforcing local content requirements. There was the imposition by the United States of trade barriers in the form of tariffs such as countervailing duties and anti-dumping duties as well as non-tariff barriers in the form of voluntary export restraints to restrain the growth of American imports from Japan and the Asian newly industrialized countries. In addition to imposing these trade barriers, the United States insisted on a ‘levelling of the playing field’ by placing pressures on Japan to liberalize its domestic markets and practice fair trade.14 In a wide-ranging move to attempt to correct its trade deficits with its major trading partners, the United States initiated action against alleged dumping practices by Japanese firms in order to curb the growth of its exports and the United States Congress passed the Omnibus Trade and Competitiveness Act in 1988. Section 301 of this legislation required the United States Trade Representative to identify those foreign countries that have erected systematic barriers against exports of the United States and to launch mandatory investigations against every identified trade barrier and unfair trade practice. Although this law expired in 1990, the United States persisted with unilateral trade restrictions (Strange, 1993). Thus in the midst of rising foreign demand for sub-compact cars associated with the oil crises and oil price hikes was also the rising clamour against the rapid and growing export penetration by Japanese firms of Western countries’ markets. Indeed, for the first time in the history of Japanese MNCs, tariffs and other trade barriers became the major factor precipitating the shift from exports to international production. In common with the protectionist trend starting from the 1880s which spurred the growth of American, British and German manufacturing MNCs, the growth of ‘new protectionism’ from the 1970s stimulated the growth of Japanese manufacturing FDI in new industries (Jones, 1996).

The second consequence was financial in nature and stemmed from the accumulation of large surpluses created out of domestic savings and net exports as well as the sharp appreciation of the yen.15 In turn, counteracting measures to deal with the recessionary impact of the rapid appreciation of the yen through the injection of liquidity into the economy by the Bank of Japan and the large fiscal expenditures of the government resulted in the emergence of a ‘bubble’ economy in which asset and land prices increased enormously. This exacerbated the wealth effect created by the yen appreciation and provided a further financial incentive for the growth of outward FDI.16 These two consequences which were mutually reinforcing made international production a more important means to service major foreign markets financed by large cash reserves of Japanese banks and financial institutions accumulated from high levels of domestic savings and net exports.

Thus, unlike international production in the first two phases which were determined primarily by the loss of comparative advantage of Japan as a location of production for traditional labour intensive light manufacturing industries as well as a site for heavy and chemical industries, international production in the third phase was not determined by a loss of comparative advantage of Japan in assembly-based, R&D intensive industries.
Indeed in the third industrialization phase, the first best option for Japanese firms was to retain production in Japan and export to overseas markets. However, the consequences of rapid export expansion outlined above served to coerce Japanese companies to engage in international production that were otherwise reluctant owing to the continuing comparative advantages of Japan as a location of production. Besides the threat of protectionism and the need to recycle capital surpluses, international production enabled Japanese manufacturing companies to fulfil their objective of participating in oligopolistic competition on the basis of well-differentiated products and good marketing techniques (Baba, 1987).

The expansion of Japanese manufacturing MNCs abroad had been led by the electronics companies in the 1970s, followed by the car companies in the 1980s and semiconductor manufacturers from the end of the 1980s (Yoffie, 1993). Their international production were mainly in the form of knock-down assembly of cars and electrical/electronic goods in mass production and the partial production of components. This explains the second boom of Japanese FDI in the era since the Second World War which occurred between the end of the 1970s and the end of the 1980s.

Associated with the rapid industrial transformation of Japanese FDI in the third phase was the geographical shift in the late 1970s and through the 1980s away from a concentration in developing Asian countries towards the advanced, industrialized countries, particularly in the United States and Europe (Ozawa, 1985; Franko, 1983). Indeed, while Asia accounted for a share of 30 per cent of Japanese cumulative net outward FDI as of 1981 reflecting the hollowing out of labour intensive industries as well as some heavy and chemical industries of Japan and the need to secure vital natural resources and raw materials, such share almost halved by 1994 as the United and Europe became the the principal host regions for Japanese FDI. These developed regions became critical locations for recycling and safeguarding excess Japanese funds in the form of both portfolio and FDI. The latter was manifested in the rapid expansion of Japanese overseas manufacturing investments in electrical equipment and motor vehicles industries that were at the core of the technological strengths of Japanese firms, and it had been in these industries that their involvement and market shares in the United States and Europe have been expanding fastest (see Dunning and Cantwell, 1991; Lamoriello, 1992). The imposition by the United States of voluntary export constraints and orderly marketing arrangements for Japanese exports of textiles, cars and electronics in the late 1970s led to the sudden upsurge of Japanese FDI in these industries (Encarnation, 1992). In addition, the initial surge of outward FDI in Europe particularly in the period between the mid–1980s and the formation of the Single European Market in 1993 can be considered a response to the threat of protectionism to non-EU-based firms associated with the formation of the Single European Market in 1993 (Heitger and Stehn, 1990). A further stimulus to the growth of Japanese FDI in Europe has been the attraction of the unified large and prosperous market which provided an economically justifiable basis for local assembly since local content requirements though strongly voiced were less stringently applied, at least initially (Ozawa, 1991; Strange, 1993). In addition, the expansion of Japanese FDI in Europe while enabling the exploitation of ownership-specific advantages of Japanese MNCs in a region of the Triad and supporting the industrial restructuring and
technological upgrading of the Japanese economy is also enhancing the globalization strategies of Japanese MNCs (Nicolaides and Thomsen, 1991; Thomsen, 1993).

The electrical equipment and transport equipment industries accounted for no less than 64 per cent of the total sales of Japanese companies in the European Community in 1986 deriving from both exports and international production (Dunning and Cantwell, 1991). A unique feature of the Japanese participation in Europe is their orientation towards the integrated European market as a whole and not to a particular national market in which local production is undertaken thus reflecting the pursuit of regional investment strategies by Japanese MNCs as part of their globalization strategy (see also Mason, 1992).

Although the establishment of assembly-based, subcontracting-dependent Japanese industries in the United States and Europe have concentrated at least initially on final stage assembly, this has been accompanied over time by the upstream production of intermediate goods. Thus, slowly but surely, the well-entrenched industrial system of subcontracting in research-based Japanese industries had been transplanted abroad increasingly owing to the high local content requirements in the United States and Europe. This process has been and is being accomplished either through the FDI of their parts suppliers or by sourcing from Spain and Portugal where a vertical division of labour thorough subcontracting can be implemented. In addition, the rapid introduction and adoption of Japanese just-in-time inventory and quality assurance practices in Europe, especially in the United Kingdom, are helping to create an encouraging investment environment for Japanese parts makers (Ozawa, 1991). In so doing, Japanese MNCs in Europe have progressed rapidly from the pursuit of simple globalization strategies towards global localization strategies (Morris, 1991).

Thus, in contrast to Kojima’s theory, the pattern of more recent Japanese FDI resemble more closely the American type of FDI in industry and geographical composition and firm behaviour (Roemer, 1976; Sekiguchi and Krause, 1980). The analysis of the trade development of Japan since the Second World War does not lend support to the static theory of comparative advantage which half a century ago would have suggested that Japan should concentrate in the production of goods for which the country is comparatively advantaged (such as labour intensive goods) and import those for which Japan has a comparative disadvantage (such as capital intensive goods). Indeed, the increasing technological competitiveness and trade surplus of Japan in technologically intensive products provides support for the view that the industries in which a country enjoys the greatest potential for innovation and in which investment can be most beneficial are not necessarily those in which a country has a current comparative advantage (Pasinetti, 1981). Major new investments by Japanese companies in the electronics components industry and the diversification into new product lines as well as efforts to sustain the development of new technologies associated with the growth industries show that Japan is seeking to continually build an industrial structure based on industries in which the country has currently no comparative advantage (see also Dunning, 1986b).

Notwithstanding the dominance of North America and Europe in the current phase of Japanese MNC expansion, the developing countries of Asia remained important to Japanese MNCs and received the third-largest share of Japanese FDI flows since 1984.
While the recession in Europe and Japan were contributory factors, the major determinants of Japanese FDI in Asia have been the region’s robust economic growth, low unit labour costs and trade and FDI liberalization and pro-FDI policy. Indeed, Japanese FDI in Asia has undergone geographical and industrial shifts since the mid-1980s away from the Asian newly industrialized economies that have experienced rapid wage increases and local currency appreciation towards member states of the Association of South East Asian Nations (ASEAN), and to China and other Asian countries that have become more cost competitive locations for Japanese FDI more recently. In addition, the previous importance of heavy and chemical industries such as chemical products, general machinery and transport machinery in the newly industrialized countries as well as transport machinery, iron and steel and textiles in ASEAN as the significant industries of Japanese FDI spawned during the second phase of Japanese MNC expansion has given way since the mid-1980s to the growth in importance of electrical machinery (including electronics) and motor vehicle production geared as much to local sales as the need to export to Japan and third countries (Urata, 1998). As in their investments in North America and Europe, Japanese MNCs have successfully implemented a regionally integrated production network in the electrical and electronics industry as well as motor vehicle industry in Asia with a fairly sophisticated regional division of labour and decentralized control (Kim, 1996).18

Despite the recurrently important role of outward FDI as a short-term solution to the threat of export growth, the long-term process of industrial restructuring in new growth industries proceeds towards the fourth phase. This is based on the development of new growth industries based on the domestic R&D of ‘next generation’ technologies that combine mechanics and electronics (mechatronics). It is envisaged that in this phase industrial goods would be more customer-tailored with a high content of soft technologies, while consumer goods would be increasingly designed to appeal to ever changing tastes of high-income consumers. These goods will be produced increasingly in factories run by highly skilled labour using computer-aided design, computer-aided manufacturing and computer-aided engineering and with small-scale and flexible manufacturing methods using numerically controlled machine tools and robots (artificial intelligence) (Ozawa, 1991). This may later give rise to a fourth phase of Japanese based multinationalism based on robotics and new materials.

Conclusion

This chapter devoted to the history of Japanese MNCs showed that although Japan only became a significant source of outward FDI in the world economy since 1960 and was the fourth-largest home country of FDI after the United States, United Kingdom and Germany in 1998, their earliest emergence can be traced to the late nineteenth century in much the same way as German MNCs. The early emergence of Japanese MNCs can be explained in the context of their important role in sustaining the economic development of Japan in which trade had always been regarded as the engine of growth. This explains the predominance of emergent Japanese FDI in the services sector, particularly in trading
and in complementary services in support of trade such as banking, marine insurance and transportation equipment such as shipping and railroads prior to 1914 and through the inter-war period. Nevertheless, the foundations of Japanese FDI in manufacturing and resource extraction had already been laid prior to 1914.

The period since the Second World War was associated with the rapid domestic industrial restructuring of the Japanese economy and the expansion of Japanese FDI in manufacturing. Four phases or waves in the growth of Japanese cross-border production corresponded closely with the industrialization process of the Japanese economy in the period since the Second World War, and shifting patterns of trade competitiveness and sectoral resource allocation have been the dominant features of such process. These phases were the ‘elementary’ stage of Japanese offshore production in Heckscher-Ohlin industries; the Ricardo-Hicksian trap stage of Japanese multinationalism associated with the non-differentiated Smithian industries; the export substituting-cum-surplus recycling stage of Japanese multinationalism associated with the differentiated Smithian industries; and the robotics and new materials stage of Japanese multinationalism associated with the Schumpeterian industries.

The early emergence of Japanese MNCs at a period in which the Japanese economy was still relatively undeveloped and the predominant role of simple, labour intensive and technologically standardized industries in their early FDI in manufacturing directed towards host developing countries is a feature that has not been observed in the emergence of American, Swedish, British or German MNCs. Nevertheless, the rapid process of catching up of Japanese MNCs since the Second World War have made the pattern of more recent Japanese FDI resemble more closely the American type of FDI in industry and geographical composition and firm behaviour. The growth of Japanese MNCs is thus in many respects sui generis in the growth of modern MNCs.

Notes

1 Based on data provided in UNCTAD (1999).
2 Coal eventually became inadequate for Japan’s own needs, and hence this commodity had to be imported in later years (Wilkins, 1986b).
3 Yet, an important distinction exists between the East India companies of the seventeenth century and the Japanese trading firms: the resilience of the Japanese trading firms. These firms have continued to survive in modern times as viable and important economic entities, taking advantage of the modern innovations in transportation and communication (Wilkins, 1986b).
4 Based on data contained in Wilkins (1986b).
5 The government was involved both directly and indirectly in the growth of international business of Japan. It was directly involved in Nippon Yusen Kaisha (shipping), the Yokohama Specie Bank and the South Manchurian Railway (Wilkins, 1986b).
6 Prior to 1911, China was a more important source of raw cotton imports to Japan compared to the United States. This changed after 1912 when raw cotton imports
from the United States grew rapidly. But the most important source of raw cotton to Japan was India (Wilkins, 1986b).

7 There were 14 Japanese trading companies that had branches in New York as early as 1881 (Mitsui & Co., 1977).

8 By 1913, the British were still the more significant foreign investor in the industry in China even in spinning where the overwhelming proportion of Japanese FDI lay. British-owned spinning mills accounted for 138,000 spindles in China compared to 111,900 spindles owned by Japanese spinning mills (Wilkins, 1986b).

9 The flour mill of the Mitsui & Co. in Shanghai is regarded as the oldest flour mill in China (Remer, 1933).

10 In the period prior to 1914 and in the inter-war period international production by firms in the Japanese cotton textile industry—the main industry of Japanese FDI in manufacturing—was determined by the emergence of foreign and domestic competition in China, the major export market. While this led to declining advantages of Japan as a location of production in the cotton textiles industry, Japan continued to maintain a comparative advantage in labour intensive production until the end of the 1960s because of an abundant domestic labour force of relatively low cost.

11 Although inward FDI had a smaller role to play in Japanese industrial development owing largely to government restrictions, the absolute low levels of inward FDI since the Second World War has been biased towards technology intensive industries such as chemicals and allied products, mechanical and instrument engineering and electrical engineering. Foreign firms were channelled towards the chemicals industry in the 1950s and 1960s to harness Japanese competence in this heavy supplier industry (Clegg, 1987). Through the employment of advanced methods, the provision of valuable knowledge about western technologies and management practices, the stimulus to the growth of intermediate supplier industries, the provision of employment and training and skill development, the association with the zaibatsu and in raising export levels of Japan, foreign firms engaged in inward FDI in Japan influenced the development of major Japanese business enterprises and Japanese MNCs (Mason, 1987).

12 The share of technology import payments to R&D expenditures rose throughout the 1950s, reaching a peak of 18.5 per cent in 1960 but has been on the decline since owing to the growing importance of indigenous R&D efforts in relation to imported technologies (Ozawa, 1985).

13 See Chapter 1 for the elaboration of Kojima’s theory.

14 This is owing to the allegation by the United States of adverse trading practices exercised by Japan. Thus, although Japan has enjoyed relatively free access to the United States market, it was accused (and to a large extent is still being accused) of restricting the imports of American goods and services through import tariffs and non-tariff barriers such as licensing regulations, technical standards, export subsidies and restricted access to foreign participation in the banking, insurance and securities industries (Chia, 1989).

15 Indeed, by comparison to the annual average net exports of goods and services of

16 This also led Redies (1990) to argue that the expansion of Japanese FDI in recent decades was an exercise in financial power.

17 In particular, Unipart, the auto component manufacturer in the United Kingdom, has been at the forefront in embracing Japanese-style production and management methods in Europe (Randerson and Dent, 1996).

18 For further analysis of the regional networks of TNCs established by Japanese MNCs in East Asia, see UNCTC (1991).
The emergence and evolution of multinational corporations from Taiwan

Introduction

By comparison to the long and rich history of MNCs based in the developed countries, the history of Taiwanese MNCs whose origins can be traced to the late 1950s and early 1960s is much more recent and contemporary. Taiwan accounted for some 0.7 per cent of the stock of outward FDI worldwide in 1990, a share equivalent to that of Japan in 1960. The stock of Taiwanese FDI which reached an estimated $38 billion in 1998 represented an annual rate of growth of more than 39 per cent since 1980, thus making Taiwan one of the most rapidly growing home countries of FDI in developing countries, if not the whole world. Despite the rapid growth, however, the share of Taiwan in the global stock of outward FDI in 1998 remained low at 0.9 per cent. Nevertheless in relation to the stock of outward FDI from developing countries in the same year, Taiwan assumed greater relative importance with a share of 9.7 per cent.1

Despite the low relative importance of Taiwanese FDI, the study of the emergence and evolution of Taiwanese MNCs is of interest not the least because Taiwan, like the United Kingdom, Germany, Japan and South Korea, is a resource-scarce country with a large domestic market. Thus, although the history of Taiwanese MNCs may be of more recent vintage and is in many respects still in the stage of emergence, the growth pattern of their MNCs as it has been evolving over the last 40 years can be compared to the growth pattern of MNCs from other countries that share similar patterns of national economic development. The analysis of the history of Taiwanese MNCs in this chapter is divided into four time frames: the 1950s and 1960s, the 1970s, the 1980s and the 1990s.

The emergence of Taiwanese MNCs in the 1950s and 1960s

The origins of Taiwanese FDI can be traced to the late 1950s and early 1960s. Such period of emergence of Taiwanese MNCs which took place in an era of significant economic growth of Taiwan also coincided with the adoption of an export-led development strategy distinct from the import substituting industrialization strategy of the 1950s.2 Government guidelines on outward FDI in the 1960s and 1970s was designed to promote the sales of domestic products, to make available raw materials required by domestic industries, to help facilitate the export of technical know-how that may increase foreign exchange earnings, and to promote international economic cooperation (Schive
The earliest official outward FDI on record was that of a local cement company that invested in a cement plant in Malaysia in 1959 with $100,000 worth of machinery (Ting and Schive, 1981; Chen, 1986).\(^3\) In 1962, an investment of $492,000 was made by a jute-bag manufacturer which established a plant in Thailand (Schive and Hsueh, 1985; Ting and Schive, 1981). The size of approved FDI grew rapidly since. In 1963, some $1.4 million of Taiwanese FDI was approved and the investments continued to grow throughout the rest of the 1960s. The major recipients of Taiwanese FDI from 1959 to 1969 were Thailand, Malaysia and Singapore which accounted for 53 per cent of approved Taiwanese FDI over the period, with countries other than Thailand, Malaysia, Singapore, Philippines, Indonesia and the United States accounting for the bulk of the remaining proportion.\(^4\) The annual average approved FDI flows from 1959 to 1969 was around $690,000.

At the time of the emergence of Taiwanese MNCs, Taiwan had a comparative advantage in low-cost, labour intensive production—an advantage that it continued to sustain for 30 years until the late 1980s. This helps to explain why unlike in the case of Japan the pioneering local manufacturing industries which ventured overseas during the 1960s and 1970s was not mainly by firms in the small-scale manufacture of toys and textiles in which Taiwan had a comparative advantage, but rather by larger firms concentrated in heavy, natural resource intensive manufacturing industries such as pulp and paper, cement, rubber, food and drink as well as chemicals and cable and wire (Bamford, 1993; Schive and Hsueh, 1985).\(^5\) The latter set of firms had the capital to fulfil their investment objective to gain access to raw materials and cheap land in Thailand, Singapore, Malaysia, Philippines and other countries (Bamford, 1993). Manufacturing was thus the most important sector of the early Taiwanese FDI, while outward FDI in the primary and tertiary sectors were far less important. Thus, in comparison to the history of MNCs from the United Kingdom, Germany and Japan, resource extractive investments abroad to support domestic industrial expansion of the home country was not a prominent feature in the history of MNCs from Taiwan where instead emergent FDI consisted of the relocation of natural resource manufacturing industries to neighbouring resource-rich host countries.

Apart from the impetus to outward FDI that government guidelines provided, the early emergence of Taiwanese FDI at a time when the Taiwanese economy was still largely undeveloped and a recipient of substantial amounts of economic aid from the United States can be explained in part by the presence of numbers of overseas Chinese businessmen in South East Asian countries that shared an ethnic heritage with those of Taiwan and which often took the initiative in approaching businessmen in Taiwan or Hong Kong to undertake investments in the region (Wells, 1983). In fact, some 89 per cent of approved Taiwanese FDI before 1976 was aimed at South East Asian countries where the largest number of overseas Chinese reside (Schive and Hsueh, 1985). The powerful alliances formed by the Chinese business community in different countries of Asia which provided business information as well as financial and marketing assistance enabled the Chinese to play an economic hegemonic role in the business and commerce of South East Asia. The emergence and growth of Taiwanese FDI in South East Asia thus...
served to reinforce that hegemonic role.

The growth of Taiwanese MNCs in the 1970s

While the annual average approved FDI flows from 1959 to 1969 was around $690,000, the annual average approved FDI flows from 1970 to 1979 was around $5.2 million. As a result, the stock of approved outward FDI in 1969 of $7.6 million grew at an annual average rate of 23 per cent to reach some $59.3 million in 1979. Indeed, major investments abroad by Taiwanese firms began in the 1970s (UN, TCMD, 1993a). By 1979, the member states of the Association of South East Asian Nations (ASEAN) consisting of Thailand, Malaysia, Singapore, Philippines and Indonesia accounted for 52 per cent of the stock of approved outward FDI of Taiwan, while the United States accounted for 15 per cent and other countries for 33 per cent. The geographical distribution of the stock of approved Taiwanese FDI in 1979 thus differed considerably from that in 1969 in two main respects. First, although the member states of the ASEAN accounted for some 56 per cent of the stock of approved Taiwanese FDI in 1969 and some 52 per cent in 1979, the relative importance of host countries within ASEAN differed markedly between 1969 and 1979. Thus, while the most important host countries for Taiwanese FDI in ASEAN in 1969 was Thailand (which accounted for 28 per cent of the total stock of approved Taiwanese FDI), followed far behind by Singapore (13 per cent), Malaysia (12 per cent) and Philippines (3 per cent), the most important host countries in 1979 was the Philippines (17 per cent) and Indonesia (15 per cent), followed far behind by Thailand (8 per cent), Singapore (7 per cent) and Malaysia (5 per cent). Second, the 1970s marked the entry of Taiwanese firms in developed countries, particularly the United States. The investment in developed countries in the 1970s by Tatung, one of Taiwan’s largest electrical equipment manufacturers, serves to mark Taiwan’s first true investment venture in the developed countries (Chen, 1986).

In order of importance, the five most important industries of Taiwanese FDI in 1979 were plastic and plastic materials (24 per cent), textiles (13 per cent), food and beverages (13 per cent), non-metallic minerals (11 per cent) and electronics and electrical appliances (8 per cent). Thus manufacturing continued to be the most important sector of economic activity of Taiwanese MNCs in the 1970s with a share of 78 per cent of the stock of approved Taiwanese FDI in 1979, followed far behind by the services sector (14 per cent) and the primary sector (8 per cent).

Unlike the early forms of Taiwanese FDI in South East Asia in the 1960s which were motivated by the need to gain access to raw materials and cheap land, their outward FDI in other parts of the world since the 1970s was motivated more by the need to overcome limited opportunities for growth in the home country by either seeking new markets abroad or establishing foreign market positions inter alia through the promotion of brand products or maintaining access to host country as well as third country markets in the midst of rising international protectionism (Schive and Hsueh, 1985; Ting and Schive, 1981; Chen, 1986). Protectionism in foreign markets has come in several guises, the most severe being the import quota. By avoiding import quota restrictions through off-shore
production in either the foreign country imposing the quota or in third countries where
the import quota restrictions did not apply or were not utilized fully, many indigenous
Taiwanese firms became MNCs. One of the most important of these import quotas was
that imposed under the Multi-Fibre Agreement which became more restrictive in the
1970s and curbed the export expansion of the Asian NICs, including Taiwan. Investments
offshore in response to this were undertaken by Taiwanese firms in the member states of
the ASEAN, South Asia, Central America and the Caribbean (Chia, 1989).

Other important objectives of Taiwanese FDI were the desire to export indigenous
technology abroad (of which the most important was technology embodied in
machinery), the enhancement of the firm’s image in the home market and to keep pace
with other firms based in the home country that have already invested abroad through a
similar pursuit of an imitative, follow-the-leader type of investment behaviour (Schive
and Hsueh, 1985). Image enhancement can be considered a means of product
differentiation (Caves, 1971), while the follow-the-leader investments are indicative of
the behaviour of firms in oligopolistic industries (see Knickerbocker, 1973). Indeed,
Taiwanese MNCs were large firms relative to the other firms in their respective
industries. The largest companies in all industries—with the exception of those in timber
and bamboo products, metals and construction—became MNCs at one stage or another.
Moreover, all Taiwanese MNCs but five were among the top 500 firms in Taiwan in
1980 (Schive and Hsueh, 1985). The main competitive advantages of Taiwanese MNCs
vis-à-vis MNCs from developed countries in host countries in order of declining
importance were the provision of products better suited to host market, lower price of
product, better marketing, greater adaptability to local environment, use of easier-to-
operate equipment and lower operating costs (Schive, 1982 as quoted in Schive and
Hsueh, 1985).

As in the 1960s, the least important motivations for Taiwanese FDI in the 1970s was
access to cheap raw materials, access to cheap labour and diversification of business risks
(Schive and Hsueh, 1985). Despite uncertainties over access to resources in the 1970s
which had spurred investments abroad in resource-rich countries of South East Asia,
Australia, Canada and Latin America to develop and process the products of agriculture,
forestry and mining, the investments were very small, particularly in comparison to Japan
and other resource-scarce large countries such as the United Kingdom, Germany and
even South Korea. This is due in part to the resource nationalism of host countries in the
1970s which placed restrictive conditions on foreign extractive investments, and in part
to the large financial requirements of forestry and mining projects (Chia, 1989).

Thus, there were five main types of investments undertaken by Taiwanese MNCs in
the decade of the 1970s in order of declining importance: first, to supply host country
markets in developing countries; second, to facilitate growth of Taiwanese exports
through export platform investments in developing countries; third, to promote growth of
Taiwanese exports through outward FDI in trading, sales, distribution and marketing in
major foreign markets; and fourth, to secure supplies of essential raw materials and fifth,
to supply host country markets in developed countries and to gain access to advanced
technologies. Each of these types of Taiwanese FDI is discussed below.
Import substituting FDI in developing countries

Considering Taiwanese FDI in such manufacturing industries as food and drink, synthetic fibre processing, paper, plastic and plastic materials, non-metallic minerals, primary metals and machinery as well as construction, finance, and other services oriented to supply the domestic markets of host developing countries, import substituting FDI by Taiwan in developing countries accounted for an overwhelmingly large share of at least 56 per cent of the stock of approved Taiwanese FDI in 1979.7

Since the emergence of Taiwanese FDI in developing countries and throughout the 1970s, the predominant motivations of Taiwanese MNCs in South East Asia was the search for markets, security of export markets and raw material supplies and access to cheaper energy and land costs. This was confirmed in the formal analysis of Joe (1990) of the various determinants of the level of Taiwanese FDI in manufacturing in Thailand, Malaysia and Singapore in the period between 1970 and 1985 which showed that other location factors in the host country such as wage rates and skills, the level of exports of Taiwan to the host country and Taiwan’s balance of trade were not significant explanatory factors of Taiwanese FDI.

Taiwanese firms involved in import substituting FDI in developing countries have the common feature of having a long production experience and the requisite technology in their respective industries to compete with local firms and other MNC subsidiaries in host developing countries. For example, the MNCs in the monosodium glutamate (food seasoning) and cement industries were already established by the 1950s and the MNCs in the polyvinyl chloride (PVC) and polyethylene (PE) plastics industries were well developed in the late 1950s and late 1960s, respectively.8 The synthetic fibre industry also experienced rapid growth in the late 1960s and grew to an extent that enabled the industry to supply up to 90 per cent of the domestic market demand of Taiwan (Ting and Schive, 1981).

As for geographical destination, import substituting FDI in food and drink in developing countries was directed to countries other than the member states of ASEAN and the United States (57 per cent), Indonesia (20 per cent) and Thailand (19 per cent), while those of synthetic fibre processing and, in particular, that of the Tuntex Fiber Company was directed mainly towards Indonesia to avail of its large oil reserves from which to derive the petrochemical-based polyester chips for the production of synthetic fibres. Outward FDI in paper processing was similarly directed solely to Indonesia to avail of its rich timber resources. Outward FDI in plastic and plastic materials was directed overwhelmingly to the Philippines (68 per cent), as was FDI in non-metallic minerals which were directed towards countries other than the member states of ASEAN and the United States (76 per cent). Taiwanese FDI in the primary metal and machinery industries was more evenly distributed among Thailand (34 per cent), countries other than the member states of ASEAN and the United States (26 per cent), and Malaysia (14 per cent), while those of construction, finance, and other services were directed towards countries other than the member states of ASEAN and the United States (45 per cent) and the United States (37 per cent).
Taiwanese FDI in the member states of ASEAN countries shared several peculiar features. First, a considerable amount of Taiwanese FDI was made without the transfer of capital funds. Instead, the form of investment of Taiwanese MNCs typically took the form of the provision of either second-hand or locally manufactured machinery to their overseas subsidiaries. In certain cases, capitalized patents and certain technological know-how were also used as capital for the investments. These forms of investments were most prevalent in the metal products, chemicals and food and drink processing industries (Schive and Hsueh, 1985).

**Export platform investments in developing countries**

Considering Taiwanese FDI in developing countries in such manufacturing industries as textiles (other than synthetic fibre processing), clothing and footwear and electronics and electrical equipment geared to supply export markets, export platform FDI in developing countries accounted for as much as 19 per cent of the stock of approved Taiwanese FDI in 1979.

As for geographical destination, export platform FDI in textiles in developing countries was directed largely to Indonesia (51 per cent) and to countries other than the member states of ASEAN and the United States (25 per cent), while FDI in garments and footwear was directed overwhelmingly to Singapore (75 per cent). Finally, export-oriented FDI in electronics and electrical appliances was directed to Singapore (38 per cent) and Thailand (33 per cent).

**Export-oriented FDI in trading, sales, distribution and marketing and service**

This type of investment, which was aimed primarily to facilitate the growth of manufactured exports of Taiwan in major export markets, accounted for as much as 11 per cent of the stock of approved Taiwanese FDI in 1979. Thus, since the United States was the major export market of Taiwan absorbing some 40 per cent of Taiwan’s total exports in the 1970s, export-promoting FDI in trade, sales, distribution and marketing and service facilities was most considerable in that country which received close to 80 per cent of approved Taiwanese FDI of this type in 1979. It was often the large exporting manufacturers which were most keen to set up trading offices in their major export markets. For example, Tatung, the largest Taiwanese electronics and electrical appliance producer already mentioned, established marketing affiliates in the United States and Singapore in 1972 before initiating international production of electric fans in the United States in 1975 and of colour television sets in 1977. The firm also established another colour television plant in the United Kingdom in 1981 (UN, TCMD, 1993a). Similarly, FDI in distribution was the main priority behind the initial FDI of Sampo, Taiwan’s third-largest home appliance manufacturer behind Tatung and Matsushita (Taiwan). Despite facing escalating cost structures and tremendous pressure from domestic and foreign competition, Sampo did not consider international production as a primary response but instead chose to exploit key foreign markets through the establishment of sales and distribution offices. Thus, in 1976 the firm set up Sampo Corporation of America based...
in Chicago as a distribution centre for its television sets. It was only in 1979 when the American government accused Sampo of illegal dumping and imposed severe penalties and quotas on the firm’s exports of television sets did Sampo respond by establishing its own manufacturing base in the United States enhanced by its long-term relationship and technical assistance provided by the Japanese company, Sharp. This explains why Sampo’s production facility in the United States was established in the same Atlanta location as an already existing Sharp facility (Bamford, 1993). As was the case with other Taiwanese producers in the developed countries, the production facilities of Sampo was initially in the assembly of Taiwan-made chassis shipped to Atlanta where these were combined with United States-made picture tubes and cabinets to make the final product—the television sets (Joe, 1990).

As in the case of Japan, Taiwanese FDI in trading, sales, distribution and marketing were often enhanced by complementary investments in shipping. Thus, the Taiwanese shipping company, the Evergreen Marine Corporation, founded on 1 September 1968 commenced its first liner service in August 1969 to the Middle East Gulf. In 1972, the company commenced a second liner service to the Caribbean, and a third conventional liner service linking the Red Sea and Mediterranean began in 1977 after the re-opening of the Suez Canal. The company implemented a full container service starting with shipments to the East Coast of the United States in 1975 and with shipments to the West Coast of the United States in 1976, and the conventional shipping services to other destinations followed suit between 1977 and 1979. The initiation of the Far East-North Europe service in 1979 enabled the Evergreen Marine Corporation to launch a ‘round-the-world’ shipping service to streamline its operations. And in 1989, the company was granted permission by the Taiwanese government to establish an international airline offering passenger and cargo services to United States, Europe and Asia starting in 1991.

Tightly managed and well financed, Evergreen is one of the world’s largest and most successful surface transportation companies. With an extensive network of overseas services and agents, it provides regional and around-the-world container shipping services.

**FDI to secure supplies of essential raw materials**

Investments of this type which have been most significant for Taiwanese firms in the agricultural, forestry (including lumber and bamboo products), and fishery industries explain 8 per cent of the stock of approved Taiwanese FDI by 1979. Examples of Taiwanese MNCs of this type were the producers of tinned pineapples engaged in backward vertical integration into the cultivation of pineapples, the fishing companies, the plywood producers, the paper manufacturers, the producers of basic metal products such as Taiwan Metal Mining and Taiwan Aluminum to gain access not only to primary metals and bauxite but also to cheaper energy resources abroad, the participation of Taiwan Power Corporation in a urea plant in Saudi Arabia and its investments in coal mining in Canada, and the investments of the Formosa Plastics Group in the United States to gain access to lower-cost crude oil and its derivatives for plastics production. The natural resource-rich countries of Costa Rica, Malaysia, Indonesia and Thailand were
the major host countries to these extractive ventures and, in some cases, also processing ventures (Ting and Schive, 1981), although as seen from the examples above the Middle East, Canada and the United States were also significant recipients of Taiwanese FDI of this type.

**Import substituting FDI in developed countries**

This type of Taiwanese FDI, which was aimed at protecting or defending access to existing markets of Taiwanese goods by supplying host country markets in developed countries through international production in the case of manufacturing or the provision of services aimed at meeting local market demand, accounted for some 6 per cent of the stock of approved Taiwanese FDI in 1979. The most substantial of this type of FDI were those of electronics and electrical appliances by firms such as Tatung and the two other largest Taiwanese electronics and electrical appliance producers that had penetrated rapidly the markets of developed countries markets through exports (Ting and Schive, 1981). Indeed, some 47 per cent of the stock of approved Taiwanese FDI in 1979 in the electronics and electrical appliances industry was directed to the United States. The establishment of production subsidiaries in the United States by these firms was a means to overcome trade barriers imposed by the United States against goods produced by Taiwanese firms in this industry owing to their rapid export expansion and the consequent growth of trade deficits of the United States vis-à-vis Taiwan. Indeed, Taiwanese FDI in manufacturing in the United States in the period 1970–85 was deemed to have been determined solely and significantly by the trade imbalances between Taiwan and the United States. Taiwanese FDI in the United States thus fulfilled the objective of circumventing trade protectionism and ensure continued access to the United States market (Joe, 1990). Note, however, that the manufacturing subsidiaries were geared initially as assembly points for intermediate products imported into the United States from Taiwan or third countries which were not as tightly restricted as final products.

Another subsidiary objective of Taiwanese FDI in electronics in the United States was to upgrade technology by gaining access to more advanced forms of technologies being developed in the Silicon Valley, for example (World Bank, 1989).

It is important to emphasize that although in principle five different types of Taiwanese FDI can be identified in the 1970s, it was often the case that one type of FDI typically led to another type over time as in the cases of Tatung and Sampo analysed above. More commonly, Taiwanese MNCs were engaged in more than one type of FDI. This was the case, for example, of an unidentified leading Taiwanese electrical and electronics manufacturer that is a multi-divisional company with a broad range of product lines ranging from consumer household appliances, telecommunications equipment, electronics products and computers, to heavy electrical equipment and instruments, steel, machinery and chemicals. Beginning in the early 1970s, the firm established a network of manufacturing subsidiaries in Japan, Singapore, Hong Kong and the United States in addition to a global network of sales and purchasing offices in Europe, the Middle East and Africa to facilitate export sales (Ting and Schive, 1981). The success it found in the domestic market appeared to have conferred in the firm the ability to invest abroad as
well as engendered a need for the firm to internationalize to maintain the image of leadership and prestige among its competitors. A closely parallel reason was the reinforcement of its brand name in the international markets to which it had already been exporting. The immediate motive of circumventing tariffs and quota restrictions in the United States, in countries of the former European Community and in high-tariff developing countries were also contributory factors. This led to import substituting international production in the countries imposing the trade barriers or in export platform investment in a third country, typically a developing country that had no quotas or had excess quotas. For instance, the television plant established by the firm in Singapore was made to circumvent the quota imposed by the former European Community as well as to supply completely knocked-down units to high-tariff countries in the surrounding region (Ting and Schive, 1981).

Similar multiple objectives for outward FDI applied in the case of TECO Machinery which as an industry leader established affiliates in developed countries in 1976 to advance the marketing, sales and service of its motor vehicle products and also established affiliates in developing countries in the 1970s including in Singapore in 1976 for the purposes of manufacturing, marketing and after-sales service (Bamford, 1993).

The Taiwanese MNCs that emerged in the period until 1979 were firms with long production experience and their technologies though not the most advanced by world standards in their industries enabled these firms to initiate and sustain their investments abroad. Their ownership advantages were enhanced by the rapid industrialization of Taiwan, and its investments in formal R&D, training as well as the presence of a supportive science-and-technology infrastructure (UN, TCMD, 1993a). Thus, although 52 per cent of the stock of approved Taiwanese FDI was directed to countries of South East Asia in 1979, this started changing in 1980 when Taiwan FDI grew even more rapidly, particularly in the United States. In that year, the stock of approved Taiwanese FDI in the United States at $44 billion surpassed for the first time that in countries of South East Asia at $34 billion. The United States became the single largest host country, accounting for 43 per cent of the stock of approved Taiwanese FDI in 1980. Thus 1980 is considered to have been a turning point in Taiwan’s FDI. The only ASEAN countries where Taiwanese FDI increased considerably since 1980 were Singapore and Indonesia (Esho, 1985).

**The further expansion of Taiwanese FDI in the 1980s**

The decade of the 1980s represented an era of phenomenal growth in Taiwanese FDI. On an approved basis, the annual average outward FDI flows of Taiwan reached $146 million between 1980 and 1989 which was 28 times as large as the annual average FDI outflows of $5.2 million in the period from 1970 to 1979 and more than 211 times as large as the annual average FDI outflows of $690,000 in the period from 1959 to 1969. In 1989, the stock of approved Taiwanese FDI at $1.5 billion represented an annual average rate of growth of more than 38 per cent since 1979—a rate considerably faster than the annual average rate of growth of 23 per cent between 1969 and 1979. However, in terms
of actual FDI outflows based on balance-of-payments data, the annual average FDI outflows of Taiwan was about $1.2 billion in the period between 1980 and 1989 compared to $2.4 million in the period between 1970 and 1979, and the estimated stock of Taiwanese FDI stood at $7.6 billion in 1989 compared to $97 million in 1980. In fact, 1988 marked the year in which Taiwan started to become a net outward investor in terms of FDI flows.\textsuperscript{11}

A combination of political and economic factors explain the dramatic expansion of Taiwanese FDI in the 1980s. There were two political aspects, one of which involved changes in Taiwan’s external relations with the rest of the world and the other involved the wide-ranging political reforms implemented by the Taiwanese government, including the liberalization of outward FDI policy and foreign exchange controls.

The externally generated political factor that encouraged the expansion of Taiwanese FDI was the severance of official diplomatic ties between Taiwan and 55 countries (including the United States and Japan) in the period between 1971 and 1988 with the official diplomatic recognition by those countries and the United Nations of the People’s Republic of China. Since only a few countries maintained formal diplomatic ties with Taiwan, the government of Taiwan sought to cultivate and expand its cultural and economic links with the rest of the world as a means to ensure the survival of the Taiwan state. In this respect, external trade (including the strengthening of bilateral trade relations with foreign countries) and outward FDI were regarded as the key mediums to fulfil that objective while also helping to increase national wealth and fulfil the doctrines of San Min Chu Yi and the Kuomintang regime (Kapellas and Liu, 1990).

The other important aspect of political change which perhaps had a greater impact on increasing Taiwanese FDI outflows particularly since 1987 was the wide-ranging political reforms undertaken by the formerly authoritarian Taiwanese regime between 1986 and 1988.\textsuperscript{12} Among the political reforms were the lifting of martial law, the easing of restrictions on foreign travel and, in an attempt to curb the inflationary pressures presented by the large and growing foreign exchange reserves, there was the liberalization of outward FDI policy between 1986 and 1988, including the gradual liberalization of foreign exchange regulations in 1987, as well as other efforts by the government to promote outward FDI that met certain criteria.\textsuperscript{13} These include: projects acquiring natural resources and raw materials, projects that will improve regional trade imbalances, FDI promoting the inflow of technical know-how and cooperation, and projects instrumental to the structural adjustment and upgrading of domestic industries. However, despite these wide-ranging political reforms to promote outward FDI, the absence of diplomatic ties between Taiwan and a large number of countries impeded the conclusion of reciprocal trade and investment agreements crucial to the growth and stability of trade and FDI, particularly with their most trade and investment partner countries (Chia, 1989).

The economic factors that contributed to the dramatic growth of Taiwanese FDI in the 1980s was attributable mainly to its rapid export expansion in the 1970s and 1980s which made Taiwan the world’s 13th largest trading nation in 1987 (\textit{Central Daily News}, 31 December 1987), and enabled Taiwan to accumulate a balance-of-trade surplus since 1975 to reach some $11 billion in 1988 as well as foreign exchange reserves of around
$74 billion—the world’s second largest after Japan. This led Taiwan’s major trading partners, particularly the United States, to impose protectionist trade pressures in the mid-1980s as a result of the rapid export expansion particularly of electronics and electrical appliances from Taiwan leading to the worsening of the deficits of the United States in its trade with Taiwan.

For Taiwan and South Korea, the problem was compounded by the sharp appreciation of their currencies since 1985 resulting from current account surpluses, excess liquidity and inflationary pressures. However, exacerbating the impact of economic fundamentals on local currency appreciation in Taiwan were demands by the United States that Taiwan manipulate deliberately the exchange rate to allow the New Taiwan dollar to rise. As a result, the New Taiwan dollar appreciated by the 35 per cent between 1986 and 1988.

The strength of the domestic currency then provided an additional motive for outward FDI by local firms. It provides support for Aliber’s theory of FDI emanating from strong currency areas as a determinant of the timing of FDI and its growth (and particularly that of foreign takeovers) as well as fluctuations of outward FDI flows around a long-term trend (Aliber, 1970). The financial explanations of the growth of FDI owing to strong domestic currencies has historical antecedents in Britain in the nineteenth century, the United States in the early post-war period and Japan and Germany in the 1970s and 1980s (Cantwell, 1989a). However, in the case of Taiwan, the financial explanations behind FDI expansion over the 1980s extended beyond the accumulation of net exports and the upward revaluation of the New Taiwan dollar. As in the case of Japan, particularly during the third phase of export-substituting-cum-surplus recycling stage of its FDI that started in the late 1960s, the accumulation of large financial surpluses of Taiwan in the 1980s was created not only from net exports and the sharp appreciation of the New Taiwan dollar but also from the escalation in acquired wealth in Taiwan during that decade brought about by the more than 30 per cent savings rates and the late 1980s boom in the Taiwan stock market. Outward FDI flows were also facilitated by the role of domestic financial services industry formed during the era of financial market liberalization in the late 1980s as a financial recycling mechanism of surplus domestic funds.

Apart from currency appreciation which affected adversely the cost competitiveness of Taiwanese exports, there were other exacerbating factors that threatened the export sales and domestic employment of Taiwan. This was the falling overseas demand and declining oil prices which served to increase further the balance-of-trade surplus of Taiwan and contribute to the rapid accumulation of its foreign exchange reserves.

In the 1980s, Taiwan responded to these mutually reinforcing political and economic forces in two ways. The first response was an attempt by the government of Taiwan ongoing since the 1970s to diversify the country’s export markets away from an excessive reliance on the United States owing to both trade pressures and the severance of official diplomatic relations between the two countries. In November 1988, although the Board of Foreign Trade regarded Japan and Western Europe as the important markets in which to promote Taiwan’s exports, attempts to penetrate those markets largely failed. Instead, trade with and outward FDI in the countries of ASEAN grew far more rapidly in accordance with the dictats of free market forces and without explicit impetus and
guidance from the government of Taiwan (Kapellas and Liu, 1990).

The second response of Taiwan to the threat to export growth was to accelerate the growth of outward FDI in its major export market, the United States, and to a far lesser extent in Western Europe to fulfil the objectives of substituting international production for exports to meet local market demand and to gain access to more advanced forms of foreign technologies. There was also the growth of export platform FDI by Taiwan in developing countries to target the markets of the United States and Europe. Indeed, outward FDI of Taiwan over the 1980s fulfilled an important role in maintaining foreign relations and economic prosperity. This means was enabled by Taiwan’s corporate wealth which allowed it to pursue outward FDI in what was in some cases regarded as ‘reckless abandon’ (Bamford, 1993). Quite apart from the economic benefits involved, outward FDI furthers Taipei’s foreign policy aims to counteract the island’s diplomatic isolation.

The above factors explain why in a marked contrast to the 1960s and 1970s, the developed countries constituting the Organization for Economic Cooperation and Development (OECD) accounted for more than two-thirds of the approved stock of Taiwanese FDI by the end of the 1980s, and the developing countries of Asia accounted for only 30 per cent. The 1980s thus marked a sharp reversal in the geographical destination of Taiwanese FDI away from the previous dominance of developing countries of Asia towards the developed countries which became the far more important recipient of Taiwanese FDI.

The manufacturing sector continued to be the most important sector of Taiwanese FDI at the end of the 1980s with a share of 63 per cent of the stock of approved Taiwanese FDI, followed by services (36 per cent) and the primary sector (1 per cent). This also reflects some considerable change from that in 1979 when manufacturing accounted for 78 per cent of the stock of approved Taiwanese FDI, followed far behind by the services sector (14 per cent) and the primary sector (8 per cent). Thus, although the manufacturing sector continued to be the dominant sector of Taiwanese FDI by the end of the 1980s, the lesser importance of the sector in Taiwanese FDI in relative terms as well as that of the primary sector contrasted with the higher relative importance of the services sector in Taiwanese FDI. This reflected the growth of Taiwanese FDI in sales, distribution, marketing and after-sales services as well as in trade and banking and finance which were particularly concentrated in the United States. In manufacturing, the dominant industry of Taiwanese FDI was electronics and electrical appliances which accounted for 46 per cent of the total stock of approved Taiwanese FDI in manufacturing. The other significant manufacturing industries of Taiwanese FDI at the end of the 1980s in declining order of importance were chemicals (21 per cent), plastic and rubber products (7 per cent), paper products (6 per cent), non-metallic minerals (5 per cent), food and drink (4 per cent) and textiles (4 per cent). By comparison, as mentioned in the previous section, the five most important industries of Taiwanese FDI in 1979 in order of declining importance were plastic and plastic materials, textiles, food and drink, non-metallic minerals and electronic and electrical appliances. Thus the 1980s was also associated with significant shifts in the importance of manufacturing industries in Taiwanese FDI with the electronics and electrical appliances industry coming to the fore as the single most dominant industry of manufacturing FDI away from the more traditional manufacturing industries of plastics,
textiles, food and drink, and non-metallic minerals.

The five main types of investments undertaken by Taiwanese MNCs in the decade of the 1970s continued to be relevant in the 1980s. However, the relative importance of the five main types of Taiwanese FDI differed significantly at the end of two decades. As analysed in the previous section, the five main types of Taiwanese FDI at the end of the 1970s in order of declining importance were: first, to supply host country markets in developing countries; second, to facilitate growth of Taiwanese exports through export platform investments in developing countries; third, to promote growth of Taiwanese exports through outward FDI in trading, sales, distribution and marketing in major foreign markets; and fourth, to secure supplies of essential raw materials and fifth, to supply host country markets in developed countries and to gain access to advanced technologies.

By contrast, by the end of the 1980s—a short span of ten years—the order of importance of the five main types had been sharply reversed. In order of declining importance, the five main types of Taiwanese FDI at the end of the 1980s were: first, investments in developed countries to supply local markets and to gain access to advanced technologies; second, to promote growth of Taiwanese exports through outward FDI in trading, sales, distribution and marketing in major foreign markets; third, to supply host country markets in developing countries; fourth, to facilitate growth of Taiwanese exports through export platform investments in developing countries; and fifth, to secure supplies of essential raw materials. Each of these types of Taiwanese FDI pertaining to the decade of the 1980s is discussed below.

**FDI in developed countries to supply local markets and to gain access to advanced technologies**

Taiwanese FDI in the developed countries in the 1980s of the type described above had three important determinants. The first determinant was to protect or retain existing export markets of Taiwanese goods by supplying host country markets in developed countries through international production in the face of protectionist trade barriers, primarily in the case of electrical and electronics products targeted to the export market of the United States. Indeed, Taiwanese FDI in the developed countries over the 1980s continued to be associated primarily with the maintenance of access to markets, the avoidance of trade barriers, and the relief of trade surpluses (Joe, 1990; Chen, 1986). The second determinant of FDI of this type derive from Taiwan’s interest to gain access to more sophisticated and advanced forms of manufacturing technology to support rapid industrial development (World Bank, 1989; Brody, 1986). The third determinant was to establish new markets in the developed countries by the provision of services (such as banking and finance, construction, etc.) aimed at meeting local market demand.

This type of FDI, which was the least important at the end of the 1970s with a share of some 6 per cent of the stock of approved Taiwanese FDI in 1979, became the most important type of Taiwanese FDI at the end of 1980s with a share of 40 per cent of the stock of approved Taiwanese FDI in 1989. Indeed, some 90 per cent of Taiwanese FDI in developed countries involved the manufacturing sector to fulfil the above two
determinants and only 10 per cent were in services.

*Import substituting FDI in the developed countries*

As in the 1970s when Taiwanese FDI first emerged in the developed countries, the single most important industry of Taiwanese FDI in the developed countries in the 1980s was electronics and electrical appliances which accounted for some 62 per cent of the stock of approved Taiwanese FDI in the developed countries in 1989. Indeed, while some 47 per cent of the stock of approved Taiwanese FDI in 1979 in the electronics and electrical appliances industry was directed to the United States, that proportion had increased dramatically to 83 per cent in 1989. This owed largely to the trade barriers imposed by the United States starting in the mid-1980s as mentioned above owing to Taiwan’s export boom in the 1980s coupled with the direct competition posed by Taiwanese companies with American manufacturers in certain industry segments of high technology and telecommunications (Kapellas and Liu, 1990). These barriers came in the form of tariffs such as countervailing duties and anti-dumping duties as well as non-tariff barriers in the form of voluntary export restraints to restrain the growth of American imports from Japan and the Asian newly industrialized countries. In addition to imposing these trade barriers, the United States insisted on a ‘levelling of the playing field’ by placing pressures on these countries to liberalize their domestic markets and practise fair trade. In a wide-ranging move to attempt to correct its trade deficits with its major trading partners, the United States initiated action against alleged dumping practices by Taiwanese firms in order to curb the growth of Taiwanese exports (Kapellas and Liu, 1990) and the United States Congress passed the Omnibus Trade and Competitiveness Act in 1988. Section 301 of this legislation required the United States Trade Representative to identify those foreign countries that have erected systematic barriers against exports of the United States and to launch mandatory investigations against every identified trade barrier and unfair trade practice. Although this law expired in 1990, the United States persisted with unilateral trade restrictions (Strange, 1993). In addition, with effect from January 1989 the four Asian newly industrialized countries were graduated from the Generalized System of Preferences of the United States on the grounds of having achieved a certain level of economic development and competitiveness (Chia, 1989).

This explains why Taiwanese FDI in the United States grew at an annual rate of 52 per cent between 1979 and 1989, a rate almost three times faster by comparison to the 19 per cent growth of Taiwanese FDI in other parts of the world. As a result, the United States became an even more important host country, accounting for a dominant share of 57 per cent of the stock of approved Taiwanese FDI worldwide in 1989 compared to its 15 per cent share in 1979.

Three important features describe the import substituting FDI by Taiwanese firms in developed countries. First, although the United States was the dominant recipient of Taiwanese FDI worldwide in 1989, other developed countries such as Europe and Japan, though far less important, were also recipients of Taiwanese FDI in 1989. Europe and Japan had shares of 5 per cent and 1 per cent of the stock of Taiwanese FDI worldwide in
1989, respectively. The most important sources of competitiveness of Taiwanese MNCs in Europe were low prices, good sales or marketing capability, punctual delivery, and good after-sales service (Wang and Hsu, 1992). Taiwanese MNCs in Europe have ready access to capital and, in a manner broadly similar to Japanese firms, capitalize on their close relationships with their low-cost and relatively high-quality component manufacturers in Taiwan that supply inputs to their overseas manufacturing facilities (Bamford, 1993). Secondly, the manufacturing facilities established by Taiwanese firms in the developed countries were often rather primitive. In most cases, the value added in the host country was often only a step more advanced than simple screwdriver operations. However, local content requirements imposed by the developed countries have meant that mere final assembly in the host country was unsustainable. Thirdly, the establishment of production facilities by Taiwanese firms in the developed countries facilitated a two-way technology transfer between Taiwan and the foreign affiliate with the parent company often providing the foreign affiliate with more efficient cost cutting and streamlining techniques, and the foreign affiliate providing the parent firm with more advanced forms of complementary manufacturing technologies unavailable in Taiwan.

Unlike in the 1960s and 1970s when Europe was not a very significant host region for Taiwanese FDI owing to the long geographical distance and the presence of language and cultural barriers, this changed rapidly since 1986. Some 200 Taiwanese companies have set up branches, subsidiaries or distribution centres in Europe, mainly in Germany or the Netherlands, and mostly in the late 1980s in preparation for the unification of European markets by the end of the 1992. The most important host country for Taiwanese MNCs in Europe had been Germany, Taiwan’s largest trading partner in Europe. Among the manufacturing companies, Taiwan’s computer industry had been most active in the investment expansion in Europe.20 As with other foreign firms and, most notably, the Japanese and Korean firms that did not have a significant outward FDI in Europe in the 1980s, the determinants of the outward FDI by Taiwanese MNCs in Europe since the mid- to late 1980s proceed from the necessity to be closer to their customers, and to hedge against fears that the European Union could turn to a protectionist trade fortress. For Taiwanese MNCs, FDI in Europe fulfils an additional motive to narrow the trade surplus of Taiwan with the United States.21 As a result, Taiwanese FDI in Europe soared to $227.3 million during the first 11 months of 1990, more than three times the level in 1989 of $73.3 million and more than seven times the level of cumulative FDI from 1980 to 1988 of $31.5 million. This included the Taiwanese FDI of $34 million in the 200-acre Far East Industrial Park in Cork, Ireland, expected to accommodate 50 to 60 small- and medium-sized manufacturers.22

**FDI in developed countries to gain access to advanced technologies**

As in the case of the industrial development of Japan, access to advanced foreign technologies is crucial in enhancing the indigenous innovation of Taiwan and the industrial upgrading of the Taiwanese economy (Ranis, 1992). Such access to advanced foreign technologies through outward FDI and technical cooperation agreements with more advanced foreign firms are complementary to larger investments in R&D in Taiwan.
and the support provided by favourable government technology policies such as the creation of the Hsin-chu Science Park as a cornerstone of the Taiwanese government’s drive to upgrade manufacturing technology and encourage high-technology industries to take root in Taiwan. Outward FDI offers a more aggressive and assured means to gain access to foreign technologies, particularly through the mode of foreign acquisitions. Such mode has allowed Taiwanese firms to leapfrog the process of technological development and, in some cases, to gain rapid entry into completely new although complementary lines of business. Some notable examples of this was the acquisition in 1980 by Formosa Plastics of a plant belonging to Imperial Chemical Industries (UK) located in Baton Rouge, Louisiana. Perhaps more sizable in scale was the acquisition in 1987 by the Taiwanese computer company, Acer, of Counterpoint Computers Inc., a Silicon Valley minicomputer maker; the acquisition by the Continental Engineering Company of the American Bridge Company in 1989 for $200 million (UN, TCMD, 1993a); and that by Channel International (a Taiwanese consortium funded in part by the government of Taiwan) of Wyse Technology Inc., an ailing American computer company, in 1989 for $156.7 million.\(^{23}\) Indeed, the late 1980s witnessed a rush of large-scale acquisitions abroad by Taiwanese firms which led western observers to wonder whether Taiwan was repeating the behaviour of Japan in acquiring some of the West’s most prominent and sacred corporate properties.\(^{24}\)

Research-based FDI have typically the following features: first, the amount of investment in this type of FDI has most often been significantly larger than other types of FDI; second, this type of FDI has started to occur with some regularity for Taiwan since the late 1980s; third, it usually involved full or majority ownership to ensure an effective means of technology transfer from the foreign affiliate to the Taiwan parent; fourth, the investments were often in a business sector which exists outside the country’s main operations; and fifth, the immediate objective of Taiwanese firms in embarking on this type of FDI was to gain access to the technology of the acquired firm and not in the acquired firm’s profitability or market share. Indeed, the aim in most cases was to use the newly acquired technology to exploit new Asian markets where Taiwanese firms may have some advantages in marketing, distribution, local knowledge, etc. (Bamford, 1993).

Apart from the major foreign acquisitions, some of these research-oriented investments of Taiwanese firms in the developed countries were manifested in the finance that Taiwanese firms provided to a substantial number of companies in the Silicon Valley since the late 1980s as well as the joint ventures concluded by Taiwanese firms with American companies.\(^{25}\) For detailed examples, see Chapter 9 of Tolentino (1993).

**FDI to establish new markets in the developed countries by the provision of services to meet local market demand**

Although services constituted only 10 per cent of this type of Taiwanese FDI at the end of the 1980s, the activities of Taiwanese MNCs in this sector are worthy of mention. Most important of all were the Taiwanese banks, the most notable group of Taiwanese service firms that invested in the member states of the OECD and particularly in Europe in the 1980s. The Bank of Communications, the International Commercial Bank of China
and Chang Hwa Commercial Bank planned to begin operations in Amsterdam in the 1980s, while China Trust Co. considered providing banking and financial services in London. Three objectives governed the FDI of Taiwanese banks over the 1980s. The first objective was to service the financial needs of individual Chinese resident overseas as well as home country firms, particularly Taiwanese exporters, by way of providing credit evaluations, export documentation and other associated export financing services. The second motivation was to service the needs of foreign firms wishing to invest in Taiwan. In this respect, the competitiveness of Taiwanese banks derive less from being a source of capital than from being a wellspring of local knowledge and inside market connections unavailable to other banks, including foreign bank subsidiaries in Taiwan. A third motivation was to service the needs of the banks themselves. Thus in the management of foreign exchange, the placement of funds in foreign financial markets, the collection of information and in the enhancement of the banks’ reputation, Taiwanese banks have found it convenient and profitable to have on-site presence and control achieved through FDI which were otherwise unobtainable in a correspondent relationship with foreign financial institutions (Bamford, 1993).

**Export-oriented FDI in trading, sales, distribution and marketing and service**

Outward FDI in response to the need to facilitate exports in major export markets and to meet customer needs in sales, service and distribution grew in importance in the 1980s and accounted for 31 per cent of the stock of approved Taiwanese FDI worldwide at that decade’s end. It represented the second most important type of Taiwanese FDI at the end of the 1980s. Unlike in the case of import substituting FDI in developed countries which is defensive in nature, i.e. to circumvent trade protectionism in major export markets, this type of FDI is offensive in its approach to promote exports of Taiwan. This type of FDI is in response to the recognition by Taiwanese firms that increasing sales and market share in world markets demands much more than maintaining price competitiveness but also product promotion through advertising, brand-name recognition, the presence of a knowledgeable sales force, personal relationships, after-sales service, and the maintenance of the firm’s reliable reputation. Many Taiwanese firms, particularly the computer and electrical equipment manufacturers and car producers, have recognized the importance of this objective since the late 1980s in order to alter the reputation of Taiwan-made goods that suffer from poor brand-name recognition and poor quality. Apart from promoting sales, marketing and distribution and providing customer service, these sales and distribution centres established in developed countries also carry out other functions such as information gathering (i.e. to determine what competitors are doing or to ascertain local market tastes). At other times, this type of FDI represent an intermediary step to the establishment of a manufacturing base by affording an opportunity to assess market potential and increase customers, establish personal relationships, and identify potential joint venture partners before undertaking larger investments including in production (Bamford, 1993).

Among the most notable example of a Taiwanese MNC engaged heavily in this type of FDI is Sampo, Taiwan’s third-largest home appliance manufacturer behind Tatung and
Matshushita (Taiwan) already previously mentioned. Since the 1980s, the outward FDI undertaken by Sampo has been associated solely with the establishment of sales and distribution centres worldwide. In 1988 and 1989, it set up offices in Germany and France to handle and monitor the personal computer business of the company in those countries. A similar objective was pursued in 1989 in South Korea, Singapore and Thailand. In a similar fashion, the early thrusts in outward FDI by Aquarius Systems—a small and relatively young and inexperienced Taiwanese MNC engaged in computer production—was in sales and distribution. The firm established such outlets in West Germany, Netherlands and Paris in 1988 and 1989, with the West German outlet serving both as the company’s overseas headquarters and also responsible for the distribution of the company’s products throughout Europe (Bamford, 1993).

**Import substituting FDI in developing countries**

Considering Taiwanese FDI in such manufacturing industries such as food and drink, synthetic fibre processing, wood products, paper products, plastic and rubber products, chemicals, non-metallic minerals, basic metal products, machinery as well as construction, finance, and other services oriented to supply the domestic markets of host developing countries, import substituting FDI by Taiwan in developing countries accounted for 20 per cent of the stock of approved Taiwanese FDI in 1989. This type of FDI represented the third most important type of Taiwanese FDI at the end of the 1980s.

Owing to the growth of Taiwanese FDI in developed countries over the 1980s, developing countries took second place in importance at the end of this decade. Investments in the developing countries of South East Asia still predominated, accounting for 30 per cent of the stock of approved Taiwanese FDI in 1989, a share much lower than it had in 1978 of 53 per cent. These investments predominated in such industries as extraction and processing of natural resources such as pulp and paper, cement and rubber, metal mining and metal production, plastics production, and chemicals production. As in the earlier periods and until 1988, the major motivations of Taiwanese FDI in developing countries of South East Asia was the search for markets, security of export markets and raw material supplies and access to cheaper energy and land costs. These findings are corroborated by Chen (1986) who found that cheap labour in developing countries did not seem to be an important determinant of the international production of Taiwanese MNCs in developing countries in the mid-1980s.

**Export platform investments in developing countries**

Considering Taiwanese FDI in developing countries in such manufacturing industries as textiles (other than synthetic fibre processing), clothing and footwear and electronics and electrical equipment geared to supply export markets, export platform FDI in developing countries accounted for a much lower share of less than 8 per cent of the stock of approved Taiwanese FDI in 1989 compared to its much higher share of 19 per cent in 1979. It was only the fourth most important type of Taiwanese FDI at the end of the 1980s.
As in the 1960s and 1970s, textiles have been the most important industries of export platform investments of Taiwanese FDI in developing countries. Some 90 per cent of these textile investments by Taiwanese MNCs have been directed towards the developing countries of South East Asia. The geographical distribution of these investments in the 1980s were essentially unchanged from that in the 1970s. Indonesia still accounted for the largest share at 47 per cent in 1989 (compared to a 51 per cent in 1979), Singapore (24 per cent) and Thailand (11 per cent). By contrast, although Taiwanese export platform FDI in clothing and footwear were far less important than its FDI in textiles, the investments have been far more significant in developing countries outside of South East Asia in the 1980s. Unlike in the 1970s in which Singapore received some three-quarters of Taiwanese FDI of this type, some 79 per cent of the outward FDI in clothing and footwear as of 1989 have been directed to countries of the Caribbean Basin since some 12 of the 25 countries that maintained formal diplomatic relations with Taiwan belonged to this region. It is with these few countries that Taiwan concluded reciprocal trade and investment agreements (Chen, 1986; Korea Institute for Foreign Investment, 1989). Investments in the Caribbean Basin also offered savings in transportation costs and transit time in shipping owing to their geographical proximity to the United States. Finally, export platform FDI in electronics and electrical appliances was directed overwhelmingly to the developing countries of Asia that accounted for 92 per cent of FDI of this type. Indeed, evidence has been found of rationalized production and product segmentation associated with the transfer of electronics and electrical production abroad by Taiwanese firms. For example, one Taiwanese firm simultaneously assembled electronic filters and magnetic devices in Thailand, technology- and skill-intensive power supply units in Mexico, and final personal computer units in Taiwan (World Bank, 1989).

**FDI to secure supplies of essential raw materials**

The importance of this type of FDI declined further from its share of 8 per cent of the stock of approved Taiwanese FDI in 1979 to 1 per cent in 1989. Resource-oriented investments by Taiwan had become the least important type of Taiwanese FDI in the decade of 1980s as concerns over resource supply and security declined with the slump in prices in world market for commodities and oil and as investments due to cost-push and market-pull factors became more dominant (Chia, 1989).

**Taiwanese FDI in the 1990s**

The decade of the 1990s seem to represent a period of even faster growth of Taiwanese FDI. Based on balance-of-payments data, actual FDI outflows from Taiwan reached an annual average level of $3.3 billion in the period between 1990 and 1998 compared to $1.2 billion in the period between 1980 and 1989 and $2.4 million in the period between 1970 and 1979. The estimated stock of Taiwanese FDI stood at $38 billion in 1998 compared to $7.6 billion in 1989 and $97 million in 1980.26 Economic factors explain the even more rapid rate of expansion of Taiwanese FDI in
the 1990s. The most fundamental perhaps was the accumulation by Taiwan of the world’s largest foreign exchange reserves in the early 1990s which enabled the country to rapidly become one of the principal sources of investment capital in the world. The determinants of such rapid growth was the declining competitiveness of domestic labour intensive industries as well as heavy and chemical industries as a result of increasing production costs in Taiwan and the increasingly adverse international trading environment. This involved major structural changes in Taiwan which altered the relevance of cheap labour and an undervalued currency as the basis of its economic success until the late 1980s. Economic pressures were exerted from various angles which increased domestic costs of production. Rapid economic growth and the political liberalization of Taiwan led to low unemployment rates and demands for higher wages and better work benefits thus undermining the low wage levels that formed an essential part of the Taiwanese economic miracle of the past. Indeed, labour costs in Taiwan in the late 1980s had become five times as high as those of Malaysia, Thailand and the People’s Republic of China (Free China Journal, 15 February 1988).

Although the problem of rising labour costs is broadly parallel to economic developments in Japan at the end of the 1960s which in combination with the sharp upward revaluation of the local currency led to the weakening of the traditional labour intensive industries (see Chapter 9 of this book), the basis of the rise in labour costs differed in the case of Taiwan and Japan. In the case of Japan, the success of domestic industrial restructuring towards modern capital intensive heavy and chemical industries at the end of the 1960s enhanced labour productivity owing to high capital to labour ratios and this perpetuated a continuous cycle of rising wages (Cohen, 1975; Kojima, 1978; Ozawa, 1979b). In Taiwan, on the other hand, not only did the shortage of low-skilled labour create pressures that drove up industrial wages but political democratization led to increased labour organization and activism and wage demands by labour unions. Unlike in Japan, the wage increases in Taiwan were not matched by productivity growth (see van Hoesel, 1997).

Of course, the rising labour costs in both Taiwan and Japan have been spurred by local currency appreciation. In the case of Taiwan, the further upward revaluation of the New Taiwan dollar was not only allied to strong export growth but was a result of the deliberate imposition of a restrictive monetary policy to combat inflation by raising interest rates and tightening domestic credit as well as pressures from the United States to redress the persistent trade imbalances between the United States and Taiwan. Thus, in the period between 1985 and 1992, the New Taiwan dollar appreciated 60 per cent against the United States dollar.

Economic pressures not only came in the form of rising wages and an appreciating local currency. As in the case of Japan during its Ricardo-Hicksian trap stage of multinationalism between the late 1950s and early 1970s, the very growth of Taiwan’s heavy and chemical industries led to the shortage of industrial space and brought forth problems of pollution, congestion and ecological destruction. In response to a public outcry over the decrepit state of Taiwan’s environment, the Kuomintang regime established a Bureau of Environment Protection in 1985 to monitor and enforce compliance to environmental standards. High property costs propelled by a shortage of
land, strict zoning regulations, public opposition to the expansion of ‘smokestack factories’ and a high degree of land speculation contributed to the difficulties faced by many local firms in the expansion of their domestic operations (Kapellas and Liu, 1990).

These economic forces affected the competitiveness of two sets of domestic-based industries of Taiwan: the traditional labour intensive industries composed of many small- and medium-sized firms and the heavy and chemical industries composed of fewer, larger-sized firms. High labour costs and local currency appreciation have undermined export-oriented manufacturing, especially manufacturers in labour intensive industries such as textiles, footwear and other industries as well as original equipment manufacturers (OEM) in the electronics and electrical appliances industry. Profit margins in the computer industry have also been affected adversely by the high labour costs and competition from China and South East Asia. Similarly, the rapid domestic expansion of firms in the heavy and chemical industries that led to the shortage of industrial space, high property costs and pollution, congestion and ecological destruction in turn posed a threat to their further domestic expansion in a manner reminiscent of Japanese industrial history in the late 1960s.

In considering the problem of a growing comparative disadvantage in labour intensive industries, Taiwan had two alternatives. The first alternative was the importation of cheap foreign labour to perform the low paid, menial and assembly-line type tasks that domestic labour have increasingly been unwilling to perform. Support for this course of action had been provided by small- and medium-sized companies and particularly those in textiles-related industries (Free China Journal, 11 April 1988; 15 August 1988). However, the feasibility of pursuing this alternative had been hampered by persistent attempts by organized labour to prevent any threat to undermine their members’ position and the already large numbers of illegal immigrants in Taiwan for which the government had continually been reluctant to provide education, medical and insurance coverage. The second alternative was the preferred option by the government and one that had the greatest impact on the growth of Taiwanese FDI in this period. It entailed the restructuring of the Taiwanese economy towards more capital intensive and technology intensive industries. This would require the shedding of those industries which have low technology, low productivity or a low value added component in the production process or their relocation abroad to more cost competitive host countries. The movement offshore of these industries would create opportunities for the growth of more dynamic industries in Taiwan, thus enhancing the growth of the industrial sector while enabling the maintenance of international competitiveness. This alternative, which treats outward FDI by labour intensive industries and domestic industrial upgrading in Taiwan as a mutually reinforcing process, is in line with the views of Kojima and Ozawa (1985). To support this objective, ‘economically inefficient’ companies relocating abroad to less developed countries with cheap labour can avail of tax rebates from the Taiwanese government on the export of manufacturing facilities and semi-finished products (Free China Journal, 11 January 1988). These companies are typically small- and medium-sized firms in the labour intensive industries of textiles, clothing and footwear as well as consumer electronic and electrical production which—unlike the cashrich, large sized Taiwanese investors of the 1970s that concentrated their FDI in the developed
countries—had relatively small amounts of available capital for FDI. This type of Taiwanese FDI is consistent with the first phase of Japanese offshore production in Heckscher-Ohlin industries prevalent in the case of Japan from 1950 to the mid-1960s.

As for the heavy and chemical industries, there had been no other recourse but to embark in outward FDI also in less developed countries to counteract the comparative disadvantage of Taiwan in resource intensive and pollution-prone industries. This type of Taiwanese FDI is reminiscent of the second phase of Japanese multinationalization in response to the Ricardo-Hicksian trap of industrialization that pertained between the late 1950s and early 1970s. Thus, with the simultaneous international expansion of firms in both labour intensive industries and heavy and chemical industries, Taiwanese FDI in the 1990s share features of the first two phases of Japanese overseas production in the period since the Second World War.

Thus, the types of Taiwanese FDI prevalent in the 1990s in declining order of importance were: first, export platform investments in developing countries; second, to supply host country markets in developing countries; third, FDI in developed countries to supply local markets and to gain access to advanced technologies; fourth, to promote growth of Taiwanese exports through outward FDI in trading, sales, distribution and marketing in major foreign markets; and fifth, to secure supplies of essential raw materials.

Thus, although manufacturing remained the dominant sector of Taiwanese FDI in the 1990s, the declining importance of the sector in Taiwanese FDI continued as in decades past and in the 1990s accounted for less than 60 per cent of the stock of approved FDI, while services displayed further growth in Taiwanese FDI with a share of over 40 per cent over the decade. With the predominance once again of host developing countries, Taiwanese FDI in the 1990s displayed characteristics more consistent with the first two decades of the history of Taiwanese MNCs (the 1960s and 1970s) and a reversal of the trend at the end of the 1980s. Indeed, in 1995 some 78 per cent of the stock of approved Taiwanese FDI was in developing countries (of which 61 per cent was in Asia and 17 per cent in Latin America), while only 21 per cent was in the developed countries (of which 17 per cent was in North America and 4 per cent in Europe). The most important feature to note in the geographical destination of Taiwanese FDI in the 1990s was the recovery in the importance of the developing countries of Asia. Thus while these countries accounted for only 30 per cent of the approved stock of Taiwanese FDI at the end of the 1980s, their share doubled to 61 per cent in 1995. As a result of the rapid growth of Taiwanese FDI in the developing countries of Asia starting in the late 1980s, the trade of Taiwan with these countries increased phenomenally and the region became one of Taiwan’s major trade partners which allowed for the reduction in importance of the United States as a trading partner.

Each of these types of Taiwanese FDI pertaining to the decade of the 1990s is discussed below in order of importance.

**Export platform FDI in developing countries**

This type of FDI has become the most important type of FDI for Taiwanese MNCs in the
1990s. The main firms and industries bringing this type of FDI to the fore are small- and medium-sized companies in labour intensive industries involved in the production of textiles, clothing, footwear, handbags, toys, and consumer electronics whose objective in the pursuit of outward FDI is the search for low-cost bases for manufacturing products destined for the United States and European markets. Although the small- and medium-sized companies had been affected most adversely by the comparative disadvantage of Taiwan, the absence of large, cumbersome bureaucracies had also given these firms the nimbleness and flexibility to relocate production in foreign countries when their survival was at stake. This type of FDI had been directed to the countries of South East Asia and, more recently, in China and Vietnam.

Export platform FDI in South East Asia

As shown in the previous sections, Taiwanese FDI of this type had always been largely drawn towards the countries of South East Asia. This had not changed in the 1990s on account of several factors acting in combination. The geographical proximity of these countries, the cultural affinity with Chinese businessmen in various countries of South East Asia whose common Hokkien dialect and business culture facilitated business transactions and negotiations across the region, the presence of an abundant labour force at low cost, the retention of trade privileges of countries of South East Asia under the Generalized System of Preferences, continuing political stability as well as the provision of various investment incentives by governments of countries in the region acted in unison to make the region a continuing favoured location of production by Taiwanese firms in labour intensive industries. In addition, Taiwanese FDI in South East Asia and Hong Kong assumes particular economic and political importance in light of the illegality of direct trade and FDI between Taiwan and mainland China. Thus not only has South East Asia and Hong Kong acted as alternative locations to China, Taiwanese FDI in those host regions is an important means of circumventing direct trade and FDI with China. The favoured locations in South East Asia were Malaysia, Indonesia and Thailand where cost factors are reinforced by political stability and availability of infrastructure. The Philippines also became a favoured location as political stability was gradually restored (Chia, 1989). While most of Taiwan’s textile producers had expanded in the Philippines, Indonesia and Thailand, many electronics companies such as Chung Hwa Picture Tube, Acer and Teco Electric had established factories in Malaysia. Taiwanese FDI in South East Asia particularly in electrical and electronics production share features not dissimilar to Japanese FDI in the same region and in the same industries. The first shared feature is that Taiwanese FDI in South East Asia has also been in the form of joint FDI not only by producers but also by their satellite companies or components suppliers, although perhaps at a smaller scale than in the case of Japanese MNCs. Indeed, small- and medium-sized firms have always worked closely together with other members of their industry when considering FDI, including in the selection of offshore locations. Apart from relieving supply constraints in host countries through the extension of their established and long-standing supplier-purchaser relationships in the home country to their business ventures abroad and the assurance of quality control, these
joint FDI provide some measure of insurance against the risks of FDI for small-scale companies inexperienced in operating in foreign territories (Kapellas and Liu, 1990).

The second feature making Taiwanese FDI in electrical and electronics production in the region somewhat similar to Japanese FDI is the presence of regionally integrated international production networks. Though perhaps not as developed and complex as the international production networks of Japanese MNCs, foreign affiliates of Taiwanese MNCs in various host countries in Asia along with affiliated and non-affiliated companies acting as suppliers and subcontractors have led to the formation of regionalized international production networks by Taiwanese MNCs (see Kim, 1996).

In the period between 1987 and March 1993, more than 4,000 Taiwanese companies had set up operations in South East Asia with investments of around $12 billion or almost half of the $25 billion capital outflows from Taiwan during this period. Indeed, Taiwan had become in the 1990s the second-largest source of FDI in Malaysia and Indonesia and the fourth-largest in Thailand. However, there were several economic and political factors that threatened the locational advantages of countries of South East Asia to labour intensive production by Taiwan. The economic factors have to do with the inevitable rise of wages as a byproduct of economic development of countries of the region and the loss of their trade privileges under the Generalized System of Preferences with the attainment of a certain level of economic development and the rapid growth of their own exports. The political threat is posed by the growing diplomatic tensions between countries of South East Asia and the People’s Republic of China over the growth of Taiwanese trade and investment (Kapellas and Liu, 1990).

**Export platform FDI in China and Vietnam**

Although an estimated 2,500 Taiwanese-backed companies had already invested between $2 billion and $3 billion in the People’s Republic of China in the period between the mid-1980s and 1990 despite the fact that indirect FDI in China was not legalized until early 1991 and the prohibition on direct investment continued, there were a number of factors that enabled China to become a more attractive location for export platform FDI by Taiwanese MNCs in labour intensive industries from around 1990. The first set of factors concerned the growing locational advantages of mainland China which with its abundant supplies of inexpensive labour and land was also eager to encourage FDI in the development of light manufacturing industries. In combination with strong family, cultural and linguistic ties between mainland China and Taiwan plus their very close geographical proximity notwithstanding their political differences, it made economic sense for Taiwan to consider mainland China seriously as a site for its labour intensive production. The second set of factors contributing to the increasing locational advantages of China for Taiwan’s labour intensive production from around 1990 was the rising wages in their traditional host countries for this type of FDI. When the initial wave of Taiwanese FDI in labour intensive production began in the late 1980s, wages in countries such as Thailand and Malaysia were one-tenth of those in Taiwan. By around 1992 or 1993, wages in those countries were only one-fifth to one-third cheaper, while China offered labour cost differentials close to what was available in South East Asia in the late
By investing in China, Taiwanese companies could re-create in essence the conditions of 1960s Taiwan with the presence of a skilled, motivated and inexpensive labour force to produce labour intensive products for export to the world’s most advanced markets in the United States and Europe (Bamford, 1993).

Owing to the prohibition of direct investment by Taiwan in mainland China, most Taiwanese firms have channelled their investments in China through Hong Kong which is in close geographical proximity to both mainland China and Taiwan, and also has the advantage of providing investments made from that territory a certain degree of legal protection. By 1994, around $19 billion had been invested in China channelled via Hong Kong, of which more than 80 per cent had been made since 1991. The growth of Taiwanese FDI in China had two important economic implications. The first was that two-way trade between the two countries conducted across the Taiwan Strait increased considerably over the 1990s with China becoming Taiwan’s fourth-largest export market. Secondly, Taiwan’s large trade surplus with the United States had been shifted to China. Thus as Taiwan’s surplus with the United States narrowed from $19 billion in 1987 to $9.8 billion in 1991, China’s surplus with the United States grew from $3.4 billion to $12.7 billion over the same period.

However, despite the continuing popularity of China as a site for labour intensive production by Taiwan in the 1990s, economic and political forces had tended to somewhat dampen the attraction of the country as an investment location for Taiwan. The economic factor had to do with the high import propensity of the Chinese affiliates of Taiwanese MNCs for required inputs particularly in the major industries of footwear, toys and clothing. In combination with unproductive workers, uncertain transport links and power shortages, it served to partially negate the advantage of lower wage and land costs in China. The political factor had to do with the persistent political differences between the two countries which made a high degree of trade and FDI by Taiwan in China risky and undesirable.

To address the concerns of Taiwan with respect to the growth of trade and particularly FDI in China, Taiwan sought other low labour cost locations in South East Asia and found Vietnam to be a suitable location. Indeed, Vietnam as a new low-wage location became the fastest growing host country of Taiwanese FDI since the early 1990s (Borrmann and Jungnickel, 1992). The locational advantages of Vietnam apart from the presence of an abundant and cheap hard-working labour force included the presence of a large ethnic Chinese community, geographical proximity to Taiwan and the tax breaks extended to foreign investors. The investments have flowed through both official channels as well as informally through ethnic Chinese relatives or friends in Ho Chi Minh City which are financing the growing number of small workshops in the city. Two Taiwanese firms—the Central Trading & Development Company and Pan Viet Group— which are controlled by Taiwan’s ruling Kuomintang regime have constructed Ho Chi Minh City’s first export processing zone. The 89-hectare site accommodating some 200 light manufacturing companies accommodates many firms from Taiwan. Indeed, Taiwanese FDI are almost exclusively in former South Vietnam—Taiwan’s
third-largest Asian trade partner after Hong Kong and Singapore during the 1960s. The sweatshops established by Taiwan in Vietnam are typically similar to that in China with their concentration in the production of clothing, textiles, shoes, foodstuffs and other consumer goods. By 1991, Taiwan had become the largest source of FDI in Vietnam.49

**Import substituting FDI in developing countries**

This type of FDI is the second largest type of FDI for Taiwanese MNCs in the 1990s. As mentioned, unlike the export platform FDI in developing countries conducted by small- and medium-sized Taiwanese firms, this type of FDI has been conducted by larger-sized firms concerned about the growing comparative disadvantage of Taiwan for natural resource-intensive and pollution-prone industries.

As in decades past, this type of Taiwanese FDI has been directed principally to countries of South East Asia. The region offers stable governments, natural resources, relatively low cost of land and wages, more lax environmental standards and continuing political stability which made the region a haven for Taiwanese businesses seeking to escape the disadvantages of the home country in heavy and chemical industries that are resource intensive and/or pollution prone. Finally, the pace of economic development and the presence within the region of increasingly affluent consumers also provided Taiwanese investors with direct access to an expanding and prosperous market at a time of increasing trade tensions between their country and the United States.

Thus, apart from being a major base for export platform FDI by Taiwan, the importance of South East Asia for FDI by large firms needing to circumvent the Ricardo-Hicksian trap of industrialism in Taiwan posed by the inadequacy of its natural resources to sustain domestic industrialization, the shortage of industrial space and increasing environment concerns had been accentuated in the 1990s. This was owing not only to the growing comparative disadvantage of Taiwan for production in heavy and chemical industries but also the need to gain access to raw materials and to search for new markets.50

Although import substituting FDI in China has not been significant owing to the political risks attached to Taiwanese FDI in that country, Taiwanese FDI of this type has been growing rapidly in Vietnam. The extension of tax incentives by the Vietnamese government combined with the provision of aid from Taiwan to Vietnam and the training to Vietnamese government officials and businessmen has enabled Taiwan to transplant not only labour intensive industries but also pollution-prone industries for which Taiwan has a comparative disadvantage.51 Vietnam has also become important to other import substituting manufacturing industries of Taiwan wishing to cater to the demands of its domestic market.52

Apart from manufacturing, there has also been in the 1990s the growth of services FDI by Taiwanese MNCs in developing countries to cater to the market demands of the host country. In a parallel trend to the growth of Taiwanese banks in United States and Europe in the 1980s, there has also been the establishment of representative offices and foreign branches by Taiwanese banks in Hong Kong in the 1990s. The major rationale for the growth of banking sector FDI by Taiwan in Hong Kong derives from the central position
of Hong Kong as a conduit for trade and FDI between Taiwan, China and South East Asia. Thus, after having already set up operations in Europe and the United States, the three largest state-owned banks—Hua Nan Commercial Bank, Chang Hua Commercial Bank and First Commercial Bank—established representative offices in Hong Kong in 1991, while private banks such as Overseas Chinese Commercial Banking Corporation and the World Chinese Union Commercial Bank are also planning similar moves.53

**FDI in developed countries to supply local markets and to gain access to advanced technologies**

Although Taiwanese FDI in the United States did not grow as rapidly as that in Asia since 1989, import substituting and research intensive manufacturing FDI as well as services sector FDI geared to the local market demand in host developed countries represented the third most important type of Taiwanese FDI in the 1990s. The motivations behind developed country investments were technology acquisition, tariff circumvention, marketing and distribution needs, after-sales services, exploitation of firm’s technical know-how, need for diversification and risk avoidance and a means of managing corporate assets. Thus, unlike their investments in developing countries where Taiwanese FDI was propelled by the declining comparative disadvantage of Taiwan for production in labour intensive industries and heavy and chemical industries, Taiwanese FDI in developed countries have been determined by the needs of Taiwanese firms to overcome trade barriers and to gain access to investment opportunities in those countries.

As mentioned, North America and particularly the United States continued to be the most important host country for Taiwanese FDI in the developed regions of the world with a share of 17 per cent of the approved stock of Taiwanese FDI worldwide in 1995. Investments in Europe in manufacturing and services have also grown significantly in the late 1980s prior to the unification of the European Community in 1992.54 Europe accounted for 4 per cent of the approved stock of Taiwanese FDI worldwide in 1995.

Two notable features describe Taiwanese FDI in the developed countries in the 1990s. The first is that as in decades past, those firms that have displayed a high propensity to engage in FDI in developed countries had almost always been the largest firms in their respective industries. However, a few smaller firms have also been active investors in the developed countries in the 1990s. Aquarius Systems, Supertron Computers and Yong Hsin Pharmaceuticals are some examples of Taiwanese companies with less than 1,000 employees that have embarked on sizable manufacturing FDI in the developed countries (Bamford, 1993).

**Import substituting FDI in developed countries**

Import substituting FDI in the developed countries in the 1990s have been concentrated in the United States as always and in Europe. Although the levels of Taiwanese FDI of this type have remained far larger in the United States than in Europe with the motivation of Taiwanese firms to recycle their trade surplus in their most important trading partner country, FDI in both these locations have been determined by the protectionism. In the
United States, the continuing protectionist tendencies have been influenced by the persistent trade deficits of that country with Taiwan and the further growth of foreign exchange reserves of Taiwan, while in Europe fears about protectionism arose in association with the formation of the Single European Market in 1992. The import substituting FDI by Taiwanese manufacturing firms in the United States and Europe has also been concentrated in different industries. Thus, while the largest scale FDI in the United States to serve its domestic market had been made by large-sized firms in the plastics products and food products industries, the size of Taiwanese FDI in European manufacturing have been far more modest and, except for Acer, one of the more prominent firms in the Taiwanese computer industry, Taiwanese FDI in Europe have been led by smaller-sized firms and the investments have been directed most notably to the electrical and electronics products industry and, in particular, computers in much the same way as Taiwanese manufacturing FDI in the United States in the 1970s and 1980s.

**IMPORT SUBSTITUTING FDI IN THE UNITED STATES**

As mentioned above, among the most prominent Taiwanese FDI in the United States in the 1990s were made by Taiwanese manufacturing firms in plastics products and food products. In both these industries, the FDI by Taiwanese firms have been geared in general to penetrate the United States in terms of sales with the majority of the FDI undertaken through acquisitions. As indicated in the previous sections, the firms in the plastics industry had already existing investments in the United States before their large-scale expansion in the 1990s of close to $2 billion. This is demonstrated in the case of the Formosa Plastics Group that had already been producing plastic resins, pipes and films in about a dozen plants in the United States with an annual revenue of around $630 million. Facilitated by the strength of the New Taiwan dollar, the further growth of FDI of this company as well as that of the China General Plastics Corporation in the late 1980s and early 1990s had been prompted by the allure of the rich and large market of the United States as well as the need to integrate backwardly into the production of ethylene—a petrochemical building block of plastics production. Thus, apart from aiming to increase sales of plastics products in the United States through the establishment of downstream plants for plastics production, the backward vertical integration of Taiwanese plastic products companies is also a resource extractive investment since a considerable proportion of the ethylene production in their American plants feeds the input requirements of plastics production in Taiwan (at least initially) or their foreign plants in the United States.

Other large-scale investments by Taiwanese manufacturing firms have been established in the food products sector propelled by the uncertainty of basing further growth of sales on exports based in Taiwan owing to continuing trade pressures from the United States, the increasing costs of land and labour in Taiwan since the late 1980s and problems in raw material procurements sourced from Taiwan’s state-dominated procurement agencies. Thus from a previous concentration of their import substituting FDI in the large countries of South East Asia and, in particular, Indonesia, Thailand and the Philippines, President Enterprises—Taiwan’s leading food-processing company—
undertook its first major overseas FDI in June 1990 with an investment of $335 million to acquire the United States’ third largest producer of cookies, Wyndham Biscuits, based in Atlanta, Georgia. The acquisition enabled President Enterprises to gain a marketing network for the distribution and sales of Taiwanese food products in the United States and a production network consisting of eight manufacturing plants based in the low wage southeastern part of the United States as well as to profit from the presence of cheaper supplies of sugar and lard in the United States. It also enabled the company to increase the share of foreign sales in its total sales from 2 per cent to nearly a quarter. Apart from Wyndham Biscuits, President Enterprises also acquired 7–Eleven convenience store chain which also served as an important sales and distribution channel for the Taiwanese company’s food products.

**IMPORT SUBSTITUTE FDI IN EUROPE**

As in the 1980s, Taiwanese computer companies lead the growth of Taiwanese FDI in Europe in the 1990s. However, in comparison to the size and scale of investments by Korean computer companies in Europe such as Samsung and Lucky Goldstar, those of Taiwanese companies are relatively more small scale. The 1990s marked the establishment of production facilities in Europe by two Taiwanese computer companies, Acer and First International Computer. In particular, Acer which gained prominence as one of the most successful producers of clones of IBM personal computers initiated assembly line production of personal computer (PC) systems and notebook computers in the Netherlands in 1990/2 and in Germany between 1985 and 1993 as well as assembly line production of personal computer systems in the United Kingdom between 1988 and 1994. This is in addition to the establishment of sales, warehousing, service facilities in these countries and a number of other countries in Europe in the first half of the 1990s. Similarly, First International Computer initiated the assembly line production of PCs and notebook computers in the Netherlands in 1990, along with sales, warehousing, service facilities in that country and in Spain, Czech Republic and France between 1990 and 1994. The company is one of the largest motherboard manufacturers in the world, and unlike most other Taiwanese computer companies that were primarily focused on the United States as their major foreign market, Europe had been by far the most important market of the company accounting for half of its total revenues in the 1990s. However, owing to its shorter international experience and emphasis on the large sales volume of components (motherboards and addon cards) than on final products (PC systems and notebooks), including as original equipment manufacturer of PC systems and notebook computers, its market presence in Europe is less extensive than that of Acer (van Hoesel, 1997).

International production combined with facilities in sales, marketing, distribution and after-sales service has enabled the Taiwanese computer companies not only to overcome fears of protectionism associated with Europe 1992 but also to have a physical presence near customers in an important market that has rapidly changing demands for computer configurations. Although production is presently limited to the local assembly of computer components sourced from Taiwan and efforts at marketing networks including
the promotion and establishment of brand names have yet to evolve fully, the presence of production and sales, marketing and after-sales service infrastructure in Europe has enhanced the capacity of Taiwanese computer companies to cater more effectively to changing consumer demand and to adapt products as well as offer products at lower cost. However, technological and marketing weaknesses vis-à-vis leading companies from more established companies in the consumer electronics and computer industry are major obstacles that have yet to be overcome. While Acer invested substantial resources to establish in a slow and gradual manner a sound market position in Europe including the promotion of its brand name, this has not yet been the strategic priority of First International Computer and other Taiwanese computer companies whose main business has remained essentially in original equipment manufacturing, subcontracting relationships with other leading companies and in the supply of computer components. This has served to hamper their development as MNCs in their own right (van Hoesel, 1997).

Apart from being at the early stage of growth in their FDI in Europe, Taiwanese FDI differs from Japanese FDI in Europe in the same industry even though the growth of FDI in Europe by both these countries have occurred around the same time—since the mid- to late 1980s. This has to do with the market orientation associated with the extent of regional integration strategies adopted by Taiwanese MNCs and Japanese MNCs. As mentioned in Chapter 9, a unique feature of Japanese participation in Europe is their orientation towards the integrated European market as a whole and not to a particular national market in which local production is undertaken. By contrast, the early stages of the development of the outward FDI of Taiwan explain their consideration of Europe as consisting of separate national markets, notwithstanding Europe 1992.

**FDI in developed countries to gain access to advanced technologies**

Taiwanese FDI to gain access to more advanced forms of technology have accelerated throughout the 1990s, and have occurred mainly as in the past decades through large-scale acquisitions of American firms, although there have also been waves of smaller scale acquisitions and joint ventures. As in the 1980s, this type of FDI has been most popular in the electrical and electronics industries and in particular computers, as well as in the chemicals and motor vehicle industries.

FDI of this type by Taiwanese firms in the electrical and electronics industries and, in particular, computers have been concentrated in the Silicon Valley of the United States. In addition to its acquisition of Counterpoint Computers in 1987 and its semiconductor joint venture with Texas Instruments Inc. in the mass production of four-megabit dynamic random access memory chips, Acer acquired in 1990 for $94 million Altos Computer Systems, a maker of multi-user computer networks, based in San Jose, California. The acquisition has been motivated as much by the need of Acer to establish a manufacturing facility in the United States and acquire complementary technologies as by the need to acquire an existing distribution network. Indeed, a considerable number of American companies based in the Silicon Valley, and particularly those involved in personal computers and semiconductors, received crucial early stage funding from
Taiwan in the 1990s encouraged by Taiwan’s venture capital industry which provide tax breaks and other incentives for investments in certain technologies. For the Taiwanese companies, the finance provided to Silicon Valley companies enables their direct access and rapid adoption of more advanced forms of technologies in their industries. Apart from accelerating their investments in R&D, research-linked FDI with small American design houses that specialize in new chip technologies has enabled Taiwanese semiconductor companies, for example, to broaden their focus away from a narrow segment of a very large market—in application-specific integrated circuits or Asics—which are not directly competitive with established foreign companies as well as to overcome overcapacity and overreliance of sales on the local market. However, Acer’s microcomputer manufacturing in the United States and some of the other high technology overseas ventures such as Mospec Semiconductor, Tainic Technology and Sigma Computer have yet to earn a profit (Hu, 1995).

Other large-scale FDI of this type in the 1990s have been made by Yue Tyan Motors, Taiwan’s fourth-largest car manufacturer and maker of motorcycles and industrial machinery, that acquired in 1991 majority control in a California-based aerospace firm, Advanced Aerospace Systems Inc., for $50 million. The main purpose of the acquisition was to gain access to complementary technologies and know-how in aerospace as a means of upgrading the technological development of the company’s production of cars, motorcycles and industrial machinery in Taiwan as well as support the objective of company to penetrate new but complementary business lines such as the production of cargo aircraft and rockets.

In the chemicals industry, mention must be made of the acquisition in the early 1990s by China Synthetic Rubber of a penicillin factory in Northumberland, England owned by the Glaxo Group which supplied some 10 per cent of the world’s requirements for raw penicillin. The acquisition enabled China Synthetic Rubber to diversify into drug manufacture (penicillin production)—a investment opportunity complementary to the company’s core business of chemical production and, in particular, in the company’s capacity as Taiwan’s sole producer of carbon black, the primary material used in the production of rubber tyres (Bamford, 1993).

**Export-oriented FDI in trading, sales, distribution and marketing and service**

Outward FDI in response to the need to facilitate exports in major export markets and to meet customer needs in sales, service and distribution grew in importance and was the fourth most important type of Taiwanese FDI in the 1990s. This type of FDI has played an important supporting role in the international expansion in the 1990s of small companies such as Aquarius Computer Systems and First International Computer as mentioned in the previous section of this chapter, as well as larger companies such as Sampo and Acer, among others. While the export-promoting FDI of Taiwanese firms had been directed largely to the major markets of the United States and Europe, some of the FDI had also been directed to the larger countries of South East Asia (Indonesia and Malaysia) and South Africa where Taiwanese companies have major trade and FDI interests.
As in the 1980s, resource extractive investments by Taiwan has remained the least important type of Taiwanese FDI in the decade of 1990s in both absolute and relative terms. Nevertheless, this type of FDI continued to be important for firms associated with industries in the primary sector as well as firms in those manufacturing industries involved in the processing of natural resources. The case of USI Far East that invested in a $370 million petrochemical complex in the Philippines is an illustrative case in point. The rationale for the company’s FDI had less to do with the need to relocate a pollution intensive industrial process (although that was part of it) as by the need of the company to secure steady supplies of petrochemical products.64

Conclusion

This chapter analysed the emergence and evolution of Taiwanese MNCs over the last 40 years. The major types of FDI undertaken by these firms and associated features such as the determinants of outward FDI, their industrial pattern and geographical destination vacillated in the 1970s, 1980s and 1990s. Thus, while import substituting FDI in developing countries and export platform FDI in developing countries were the predominant types of FDI from the period of their emergence in the late 1950s to the end of the 1970s, import substituting FDI in developed countries and export-oriented FDI in trading, sales, distribution and marketing and service also mainly in developed countries were the predominant types of Taiwanese FDI at the end of the 1980s. At the end of the 1990s, export platform FDI in the developing countries and import substituting FDI in the developing countries came to the fore in a manner more consistent with the first two decades of the history of Taiwanese MNCs (the 1960s and 1970s) and reversing the trend at the end of the 1980s.

To the extent that Taiwanese FDI could be compared with the pattern of Japanese FDI since the Second World War, the first and second phases of Japanese FDI in labour intensive manufacturing in textiles, sundries and other low-wage goods (the first phase) and in heavy and chemical industries during the Ricardo-Hicksian trap stage of Japanese FDI (the second phase) had been transposed in the case of the history of Taiwanese MNCs. This is associated with a prolonged dependency or sustained comparative advantage of the Taiwanese economy on labour intensive production until the late 1980s. The basis of the prolonged competitiveness of these industries derived from the Taiwan state’s policy of wage suppression and the political subordination of popular sectors (i.e. middle stratum of professionals, skilled workers, businessmen and farmers) to the state which was brought to an end with the political democratization in Taiwan from around 1987. The emphasis on the domestic industrial development of heavy and chemical industries in Taiwan in the 1960s and 1970s led to the dominant role of outward FDI to relocate abroad some of the more resource intensive and often pollution-prone industries in the 1970s and 1980s. Taiwanese FDI in labour intensive industries emerged in the late
1980s and grew in a major way in the 1990s.

Two unique features of the history of Taiwanese FDI stand out. The first is the lesser importance of outward FDI to extract natural resources compared to other countries that share features of its national economic development—the United Kingdom, Germany, Japan and even South Korea—in which resource extractive FDI played a more prominent role in the pattern of outward FDI particularly in the early phases. In the case of Taiwan, outward FDI to secure supplies of essential natural resources and raw materials even at its peak in the 1960s and 1970s did not account for more than 10 per cent of the stock of approved FDI. Two factors may have contributed to such small share: the rising tide of resource nationalism in developing countries since the late 1960s and the high capital intensity of FDI of this type which Taiwanese MNCs cannot provide. Perhaps the importance of Taiwanese FDI in resource extraction has been masked by outward FDI in resource processing manufacturing industries that have either been relocated to resource-rich host developing countries in South East Asia to serve host country markets and/or engage in the export of semi-processed raw materials from the resource-rich host countries to Taiwan.

The second peculiar feature is that the early penetration of Taiwanese MNCs in developed countries was premature and unsustainable. With the lack of technological capabilities (including the ability to produce products geared to higher-income markets) and the inability to establish linkages with local component suppliers in the developed countries, the initial thrusts in the growth of Taiwanese FDI in the developed countries in the 1970s and 1980s proved unprofitable and unsuccessful. This helps to explain why international production in developing countries that were the predominant host countries of Taiwanese FDI in the 1960s and 1970s once again received the bulk of Taiwanese FDI in the 1990s.

Notes

1 The data in this paragraph were sourced from Tolentino (1993) for 1960, and UNCTAD (1999) for 1980, 1990 and 1998.
2 During Taiwan’s import substitution stage of the 1950s, the Taiwanese government was actively involved in determining the country’s industrial structure, owning most of the largest businesses and managing much of the trade flows through protectionism, exchange rate manipulation, and price setting. The development of locally controlled infant industries was enhanced by government subsidies and protection from foreign competition through the imposition of high tariff barriers. Although this led to the creation of a burgeoning class of entrepreneurs, the gains from an artificially created comparative advantage in heavy industry had become exhausted rapidly and hence around 1960, Taiwan’s policy of import substitution had given rise to one of export promotion (Aggarwal and Agmon, 1990).
3 Unless otherwise indicated, the data on Taiwanese FDI refer to the approved value of Taiwanese FDI as provided by the Taiwanese Ministry of Economic Affairs, Investment Commission. All data in this chapter have been derived from this source.
and from various issues of the *Statistics on Outward Investment and Outward Technical Cooperation, R.O.C.* The stock of approved Taiwanese outward FDI represent cumulative flows of approved outward FDI since 1959. This should not affect the time-series analysis of the broad trends in the industrial and geographical patterns of Taiwanese FDI. However, it is important to appreciate that the amount of actual FDI is more often than not several orders of magnitude larger in comparison to FDI based on registration or approvals. This is because Taiwanese firms, at least until the political and economic reforms between 1986 and 1988, were not allowed to invest abroad more than 40 per cent of their paid-up capital; have contempt for transparent accounting; and both large and small companies have a preference to raise finance through the network of overseas Chinese to avoid official scrutiny.

4 Thailand was by far the most important host country of Taiwanese FDI in the period from 1959 to 1969. It accounted for a share of 27.9 per cent of the stock of approved Taiwanese FDI in 1969, followed by Singapore with a share of 12.6 per cent and Malaysia with 12.2 per cent. The official data does not allow the disaggregation of the category of other countries. All that can be deduced is that this category includes all countries other than Thailand, Malaysia, Singapore, Philippines, Indonesia and the United States.

5 To the extent that there was outward FDI by Taiwanese textile manufacturers in the 1960s, it represented defensive investments in developing countries in response to highly restrictive national quotas placed on their exports from the home base. The investments were directed largely to Singapore and Malaysia where such quotas were yet to be imposed (Chia, 1989).

6 In terms of actual FDI outflows based on balance-of-payments data, the annual average FDI outflows of Taiwan was $2.37 million in the period between 1970 and 1979.

7 Within the food and drinks industry, the major investors were the monosodium glutamate (MSG) producers, while in the plastics industry the major investors were the producers of polyvinyl chloride (PVC) and polyethylene. Most of the firms in the non-metallic industries were cement manufactures (Ting and Schive, 1981).

8 The plastics plant established by a Taiwanese PVC producer in 1975 with an annual capacity of 240,000 tons was considered the fifth-largest PVC plant in the world at that time (Ting and Schive, 1981).


10 Its production subsidiaries in Japan, Singapore and the United States primarily assemble household appliances and electronic goods in the production of which the firm had attained success in its home market (Ting and Schive, 1981).


12 The political reforms were undertaken in light of the increasing affluence of the population, the general rise in national education levels, the influence of Western political ideas, the expansion of economic and cultural contacts abroad as well as public indignation over a series of government scandals, all of which contributed to increase popular pressure for change in the country’s political environment.
(Kapellas and Liu, 1990). The political reforms included the formation of a legal political opposition party and the corresponding growth in importance of public opinion rendered the government increasingly accountable for its actions, thus restricting its ability to impose stringent controls over the outward flow of tourists and capital. The set of rules governing outward FDI from Taiwan until 1986 was contained in a set of regulations—Regulations Governing the Screening and Handling of Outward Investment and Outward Technical Cooperating Projects—and some relevant articles in several statutes. Exchange controls and strict regulation of capital exports were in place to avoid capital flight (Chen, 1986) which served to curtail the transfer of capital overseas (at least officially). As the Taiwanese government regulated outward investments strictly to assess their benefit to the home economy, substantial investments were undertaken through unregulated and unapproved channels (Chia, 1989).

13 As of March 1989, individuals were permitted to transfer a maximum of $5 million per year offshore, an increase from $500,000 earlier that year and 1200,000 in 1988. In addition, outward FDI that meets certain criteria become eligible for Export-Import Bank credit and insurance (Chia, 1989). The Central Bank also started to make some foreign reserves available to firms that undertake FDI (‘Foreign acquisitions get the nod’, Euromoney, October 1990). In addition, Chen Li-an, the Minister of Economic Affairs of Taiwan, announced a plan in October 1988 to promote the establishment of 10 to 20 MNCs to accelerate the process of internationalization of local enterprises. More importantly, the Executive Yuan established in April 1988 a $1.04 billion Overseas Development Assistance Fund designed both to aid developing nations and to assist Taiwanese enterprises in overseas investment and the expansion of foreign markets. In addition, faced with a financial infrastructure inadequate for the task of promoting capital intensive and high technology development projects, the government reformed financial regulations to ease access to credit and finance capital (Kapellas and Liu, 1990). Financial market liberalization led to the formation of a domestic financial services industry.


15 On attempts by Taiwan’s trading partners to demand that Taiwan allow its currency to rise further, see ‘Investment by Taiwan: The embarrassment of riches’, The Economist, 25 March 1989.

16 For example, in some cases outward FDI has been contemplated simply because the head of the company regarded that outward FDI was a ‘good thing.’ In other cases, the outward FDI of Taiwanese companies had been in sectors outside of their experience or expertise. This was the case in the acquisition by Pacific Wire & Cable of eight failing savings and loan associations in the United States in 1990 for $53 million and the acquisition of Omni Bank by China Rebar which had no prior experience nor expertise in finance (Bamford, 1993).

17 It is sometimes argued that unlike South Korea, Taiwan was able to avoid much of
the trade retaliation brought about by the increasing trade pressures owing to the small size of its firms which provided a degree of anonymity, and the important role of many Taiwanese companies as original equipment manufacturers (OEM) whose fate was linked inextricably to that of domestic producers in the developed countries. This made trade retaliation by developed countries a process of self-inflicting pain (Wang and Hsu, 1992).

18 Between 1979 and 1986, Taiwan’s exports to the United States rose 336 per cent from $5.65 billion to 118.99 billion, resulting in the growth of the United States trade deficit with Taiwan from $5.33 billion to $13.58 billion. The deficit grew further to $17.44 billion in 1987 (Kapellas and Liu, 1990).

19 This is owing to the allegation by the United States of adverse trading practices exercised by Taiwan and South Korea. Thus, although Taiwan and South Korea have relatively free access to the United States market, these countries were accused of restricting the imports of American goods and services in their countries through import tariffs and non-tariff barriers such as licensing regulations, technical standards, export subsidies and restricted access to foreign participation in the banking, insurance and securities industries. American criticism of Taiwan’s trade practices also stem from the latter’s large and growing foreign currency reserves second only to Japan which although regarded as an instrument by Taiwan to maintain political and economic security was enough to cover almost three years of import needs. Furthermore, the United States was concerned that Taiwan manipulated their exchange rate to maintain the cost competitiveness of its exports. Many of Taiwan’s efforts to correct the problem were seen to be not effective enough (Chia, 1989).

20 For example, Acer, regarded as Taiwan’s IBM, had established 11 branches in Europe in the 1980s, including that for production in Helmond, the Netherlands. Delta Electronic Industrial Co. also unveiled its first European expansion project—a $28 million investment to set up a manufacturing facility near Glasgow over a period of five years. Mitac International Corp. also planned to build a plant in the United Kingdom and Plus & Plus Co. and Microtek International Inc. had been studying plans for establishing production lines in Europe. See ‘Taiwan companies race to Europe to establish niche ahead of 1992’, The Asian Wall Street Journal Weekly, 31 December 1990.

21 As a result in part of the growth of Taiwanese FDI in Europe in the 1980s, Taiwan’s bilateral trade with Europe accounted for 16.3 per cent of its total foreign trade in 1989, a significant increase from 10.7 per cent in 1985. Correspondingly, the share of the United States in Taiwan’s total foreign trade declined to 30.4 per cent in 1989 from 38.4 per cent in 1985. See ‘Taiwan companies race to Europe to establish niche ahead of 1992’, The Asian Wall Street Journal Weekly, 31 December 1990.

22 See ‘Taiwan companies race to Europe to establish niche ahead of 1992’, The Asian Wall Street Journal Weekly, 31 December 1990. 23 The principals in Channel International are the privately owned China Trust Group, Pacific Petrochemical, USI Far East, the Mitac Group (a leading manufacturer of personal computers) and a

24 See ‘Why Taiwan is not another Japan’, *The Financial Times*, 12 September 1990.


28 In 1987, Taiwan claimed to have the lowest unemployment rate of 1.86 per cent compared to that of South Korea of 2.3 per cent and Japan of 2.7 per cent (*Free China Journal*, 11 January 1988).

29 Political liberalism tolerated a rash of strikes—almost illegal—by workers demanding higher bonuses. See ‘Investment by Taiwan: The embarrassment of riches’, *The Economist*, 25 March 1989. As a result, wages in the industrial sector increased by 10.9 per cent in 1988, 14.6 per cent in 1989 and 13.5 per cent in 1990 (van Hoesel, 1997).

30 In fact, it rose by 19 per cent between 1991 and 1992. The increasing pressures exerted by the United States on Taiwan to appreciate the New Taiwan dollar against the American dollar has been made in light of the allegation made by the United States Treasury in May 1992 that Taiwan had been manipulating its exchange rates to reduce upward pressures on the currency and to maintain international competitiveness as reflected in its rising foreign exchange reserves and trade surpluses. See ‘Too strong too long: Taiwan exporters rail at rising currency’, *Far Eastern Economic Review*, 30 July 1992.

31 The threat to exports was substantial given that labour intensive manufactures comprised roughly 45 per cent of Taiwan’s total exports in 1985 (Kapellas and Liu, 1990).


33 The Taiwanese government had identified ten industries of the future and offered many incentives to investors in these areas, including through inward FDI. This included telecommunications, information, consumer electronics, semiconductors, precision machinery and automation, aerospace, advanced materials, fine chemicals and pharmaceuticals, health care and pollution control. See ‘A leading source of investment capital’, *International Herald Tribune*, 10 October 1994.

34 For example, an electronics company that sets up a low-end assembly line in Thailand may refocus its Taiwan factories on making higher-technology components which can be exported to the Thailand assembly plant. See ‘The upstart taipans’, *Far Eastern Economic Review*, 19 April 1990.
International production by Taiwanese firms in textiles grew in a significant way starting in 1989. Between 1988 and 1992, the stock of approved Taiwanese FDI in textiles increased at an annual average rate of 97 per cent. Taiwanese FDI in electronic and electrical appliances which in 1992 accounted for one-third of the stock of approved Taiwanese FDI in manufacturing (or 19 per cent of the stock of Taiwanese FDI in all industries) grew by 57 per cent.

Such ranking of the major types of Taiwanese FDI in the 1990s is largely consistent with the findings of a 1992 survey by the Ministry of Economic Affairs which analysed the motivations of Taiwanese FDI: access to an abundant supply of cheap labour, developing overseas markets, promotion of sales to the host or neighbouring markets, more effective utilization of existing company equipment, more effective utilization of company personnel, access to raw materials, reduction of foreign exchange rate fluctuation, and securing of orders (Bamford, 1993).

 Taiwanese manufacturers, particularly those who qualify as pioneer industries, may receive income credits or exemptions on income and investment taxes for periods up to eight years after the start of operations. The ASEAN governments also offer import and export duty exemptions and simplified customs procedures on imported raw materials and manufacturing equipment for firms engaged in export manufacturing. Firms which invest in remote or targeted locations may also receive subsidies or discounts on utilities and local licence fees (Korea Institute for Foreign Investment, 1989; Chia, 1989).

See ‘Taiwan’s offshore empire’, *Far Eastern Economic Review*, 18 March 1993; ‘No more Mr Nice Guy’, *Far Eastern Economic Review*, 18 March 1993; and ‘Taiwan’s offshore empire’, *Far Eastern Economic Review*, 18 March 1993. About 400 Taiwan-based manufacturers of all types were present in Malaysia in 1992. Of these, 110 firms were in electronics engaged in the production of both parts and final products such as electronic calculators, facsimile machines, telephones, audio equipment and television screens. Most of these were clustered in industrial parks in the northern state of Penang. Others are involved in steel, textile or paper-based products. However, Taiwan’s popularity in Malaysia has waned because its aggressive business presence led to rising rents and their investments were regarded as footloose and either concentrated in labour intensive industries or in pollution intensive industries. From Taiwan’s point of view, Malaysia is also losing its locational advantages in production with high labour costs, industrial thefts, social problems, difficulty in obtaining visas, etc. Thus Taiwan has fallen from its pinnacle as one of Malaysia’s largest investor in the manufacturing sector to the one most likely to quit in the face of a beckoning Chinese market that instituted economic reforms, and the increase in investment incentives in Vietnam, Indonesia and Thailand. See ‘No more Mr Nice Guy’, *Far Eastern Economic Review*, 18 March 1993.

See also *Business Asia*, 30 September 1991.


In 1991, while there were more than 2,000 Taiwanese firms in China, there were only more than 1,000 factories established in Southeast Asia. See ‘Taiwan’s trade pattern turns upside down’, *Financial Times*, 4 June 1991; ‘Taiwan firms’ zeal for investing in Southeast Asia may be ebbing’, *The Wall Street Journal*, 18 January 1991; ‘Taiwan’s offshore empire’, *Far Eastern Economic Review*, 18 March 1993. See *Business Asia*, 30 September 1991.


One example of this type of FDI by Taiwanese MNCs was that of China General Plastics Corp which participated in a $480 million petrochemical project in Malaysia. The three largest pulp and paper companies of Taiwan have also set up mills in Indonesia, Thailand and Vietnam. The case of Yuen Foong Yu Paper Manufacturing Co. which invested $400 million to expand its existing paper and pulp mills in Indonesia in light of that country’s rich natural resources, cheap labour, relatively weak pollution laws and large domestic market is an excellent case in point. See ‘The upstart Taipans’, *Far Eastern Economic Review*, 19 April 1990; ‘Taiwan’s offshore empire’, *Far Eastern Economic Review*, 18 March 1993.


Some large-sized Taiwanese firms have penetrated the Vietnamese market. For example, Ching Fong Investment received approval for two motor cycle factories and a $288 million joint venture for a cement plant in the northern port city of Haiphong. This made Ching Fong the largest foreign investor in Taiwan. See ‘Open for business: Vietnam’s economy gets big lift from Taiwanese’, *Far Eastern Economic Review*, 18 March 1993.


This consisted of the $1.7 billion investment of the Formosa Plastics Group to include a plant that produces ethylene as well as at least six downstream plants that processes ethylene into polyethylene and other derivative products. There were further intentions of establishing more petrochemical processing plants in the United States over the 1990s, including in Louisiana. The size of the FDI of the China General Plastics Corporation in its American affiliate, Westlake Polymers...
Corporation, was far more modest at more than 1200 million. See ‘Taiwan’s US strategy’, *Forbes*, 29 May 1989. The investment of the Formosa Plastics Group was considered the largest outward FDI by a Taiwanese company approved by the Ministry of Economic Affairs at the time. See ‘Taiwan plastics group to set up US units’, *Far Eastern Economic Review*, 24 August 1989.

56 In plastics production, ethylene is converted into polyethylene and other derivative products. The intention of the Formosa Plastics Group at the time of its investment expansion was to export to Taiwan some 70 per cent of its ethylene production in Texas. However, over time the company expects such exports to decline as more plastic-based consumer goods are produced in the United States. On the other hand, the China General Plastics Corporation through its United States affiliate, Westlake Polymers Corporation, intends to use a similar percentage of its ethylene output to feed the input requirements of the two polyethylene plants the company acquired from Cities Service in 1986. See ‘Taiwan’s US strategy’, *Forbes*, 29 May 1989.

57 Of the various gains from the acquisition of Wyndham Biscuits, the access to the marketing networks was regarded to be the most important gain to President Enterprises. The marketing network of Wyndham Biscuits was considered impeccably grassroots with more than a third of the company’s products distributed and sold through delivery vans (with on-board computers for inventory control) that travel along operator-owned franchise routes. Another 25 per cent of the company’s products were sold through annual door-to-door fund-raising by legions of American Girl Scouts. This marketing approach serves the interests of President Enterprises best compared to competing head-on with established name brands in food products at the national level. See ‘Recipe for success’, *Far Eastern Economic Review*, 21 March 1991.


59 This included among others the $1 million investment of Tatung Co., a Taiwanese consumer electronics company, in GraphOn Corporation, an eight-year-old maker of computer window displays based in San Jose. The purpose of Tatung was to use GraphOn’s products in the production of its computer systems. Hualon Microelectronics Corporation has only purchased 10 per cent of Seeq Technology Inc., a computer chip maker also based in San Jose, for $5.3 million. As part of the deal, Seeq chips will be made in Taiwan, thus assisting Hualon Microelectronics Corporation to use more of its capacity as a foundry for semiconductors. There is also the joint venture between a research institute funded by the Taiwanese government and IBM in International Integrated Systems Inc., a software company. See ‘Despite setbacks, Taiwan’s Acer group intensifies its efforts to expand globally’, *The Asian Wall Street Journal Weekly*, 27 May 1991; ‘Other Asian investors follow Japanese to U.S. pouring cash into high-technology companies’, *The Asian Wall Street Journal Weekly*, 14 January 1991.

61 This is with the exception of Macronix which has developed a different product mix including chips for facsimile machine modems, chipsets to power graphic displays in PCs, sophisticated programmable memory devices called Eproms and data communications semiconductors for use in computer networks. See ‘Macronix hopes marketing skill will overcome local pitfalls’, The Asian Wall Street Journal Weekly, 25 November 1991.
63 See Business Taiwan, 28 October 1991.
11
The emergence and evolution of multinational corporations from South Korea

Introduction

As with Taiwanese MNCs, the origins of South Korean MNCs can be traced to the late 1950s and early 1960s. However, the stock of outward FDI from South Korea in 1998 at $21.5 billion is much more modest compared to that of Taiwan of $38 billion. Although the level of South Korean FDI stock in 1998 was roughly comparable to that of Japan in 1980, its share in the global stock of outward FDI was low at 0.5 per cent and even lower than the share of Japan in 1960 at 0.7 per cent. Nevertheless, in relation to the stock of outward FDI from developing countries in the same year, South Korea assumed greater relative importance with a share of 5.5 per cent. Based on the size of outward FDI stock in 1998, South Korea was only the fifth-largest home country based in developing countries after Hong Kong, Singapore, Taiwan and China.¹

Despite the low relative importance of South Korean FDI, the study of the emergence and evolution of South Korean MNCs is of interest as another case study of MNCs from a resource-scarce developing country with a large domestic market. The growth pattern of South Korean MNCs as it has been evolving over the last 40 years can be compared most directly to those of Taiwan, another newly industrialized country in Asia, or more broadly to those of MNCs from the developed countries such as the United Kingdom, Germany and Japan whose home countries share similar patterns of national economic development and whose histories have been analysed in the previous chapters in this part of the book. The analysis of the development of South Korean MNCs in this chapter is divided in three time frames: from the 1950s to the 1970s, the 1980s and the 1990s.

The emergence of South Korean MNCs from the 1950s to the 1970s

The emergence of South Korean MNCs has to be understood in the context of the industrialization of its domestic economy. At the conclusion of the Korean War (1950–53), South Korea had an open dualistic economy with an unfavourable natural resource endowment but a large supply of surplus labour with a relatively high level of education and skills. Typical of the industrial development of most developing countries, the Korean economy comprised a large traditional subsistence agricultural sector relative to its non-agricultural sectors in spite of its inherent natural resource scarcity. With foreign trade as an important agent of economic growth in post war South Korea, the pattern of
domestic production and exports developed rapidly from traditional agricultural- or land-based products towards more non-traditional labour-based industrial products in which the country had been building a comparative advantage (Jo, 1981).

Such process of domestic industrial transformation was supported by an import substitution development strategy implemented in various stages with the initial phase pertinent from the end of the Korean War to 1965. In this early phase of South Korea’s industrial development, the policy of import substitution was aimed at the development of domestically controlled industries producing consumer goods that had previously been imported in relatively large quantities but which could be produced domestically with relatively simple technologies. Some of the pioneering industries that developed with imports of capital goods and raw materials were industries processing natural resources to include flour milling, sugar refining, cotton and wool spinning and weaving, food processing, plywood manufacture and so forth. Thus, as in the history of the industrial development of the United Kingdom, South Korea cultivated a comparative advantage in labour intensive, capital neutral and human capital-scarce products. Such process of import substitution was ‘deepened’ in a small number of large-scale activities in earlier years, as well as expanded to a large number of small-scale activities in later years. For example, the industrial development policy of the early 1970s emphasized the development through import substitution of consumer durables, intermediate inputs, and capital goods (Jo, 1981).

With the rapid growth and development of natural resource-based consumer goods industries in the mid-1960s, the traditional pattern of South Korean exports based on primary products was replaced rapidly by exports of consumer goods produced with the use of relatively unskilled labour and modest amounts of capital. Although a number of new firms were established specifically for the purpose of generating these exports, the majority of the exports were made possible by the large number of firms whose competitiveness and growth of production was achieved from the policy of import substitution but whose growth of production could not be absorbed fully by domestic demand. The year 1965 is thus regarded as the turning point of South Korean industrialization and trade policies away from import substitution towards export promotion starting initially with the domestic production and exports of labour intensive consumer goods. This era coincided with the complete shift in government policy away from direct controls towards economic liberalization consistent with a more market-oriented and export-oriented economy.3

It was during the tail end of the import substitution industrialization phase that the first South Korean MNCs emerged. In broad parallelism with the early foreign activities of the Japanese sogo shosha, the pioneering outward FDI on record involved the establishment in 1959 of a branch office in the United States by the Korean Traders Association through the acquisition of a commercial building in New York City. Such acquisition was financed from foreign exchange earnings derived from South Korean tungsten exports to the United States (Jo, 1981). This investment foreshadowed the beginning of the export-oriented industrialization phase of the South Korean economy.

The second case of South Korean FDI involved a timber operation in Malaysia initiated by a South Korean resident in 1963 (Jo, 1981). The investment was motivated by
the necessity of securing a supply of timber to sustain the growth and development of the South Korean-based plywood industry, one of the consumer goods industries fostered by the import substitution industrialization phase whose products had rapidly become one of the country’s principal exports. Indeed, resource extractive outward FDI was a central feature in the emergence of South Korean MNCs, unlike in the case of Taiwan. Outward FDI of this type accounted for as much as one-quarter of the total stock of approved South Korean FDI at the end of the 1970s.

The insignificant amounts of South Korean FDI in the import substitution industrialization phase was in part a reflection of the authorizations for outward FDI which only began to be provided starting in 1968 with the realization by the South Korean government of the important role of outward FDI in securing access to raw materials, expanding exports and promoting international economic cooperation with developed and developing countries (Jo, 1981). In fact, there has been a broad parallelism in the development of outward FDI policy in Japan and South Korea (Randerson and Dent, 1996). The Foreign Exchange and Trade Control Act of 1949 which tightly regulated Japanese overseas investment for two decades had its equivalent in the Foreign Exchange Control Regulations of 1968 which fulfilled a similar function in South Korea until the gradual liberalization of South Korean outward investment policy since 1986. Both foreign exchange acts were implemented at an early phase of industrialization in both countries with the presence of persistent balance-of-payments deficits and the emphasis placed on directing financial resources to achieving rapid domestic industrial growth, both of which served to restrict the availability of investment capital.4 The strict controls on outward FDI to emphasize domestic industrial development was reinforced in both countries by the restrictions on inward FDI to insulate domestic firms from foreign competition. Despite the tight regulation, however, the overseas investment projects that were approved were extended a number of investment incentives, including low-cost loans from the Korea Eximbank or the Overseas Resource Development Fund (in the case of projects that develop mineral resources overseas), payment guarantees by South Korean commercial banks, protection from investment risks, and an information service (Koo, 1984).

By 1979, the stock of approved South Korean FDI reached some $126.4 million.5 Although relatively small in amount, it was more than double the stock of approved Taiwanese FDI in 1979 of $59.3 million. Similarly, a comparison of the actual FDI outflows of the two countries based on balance-of-payments data shows that the annual average FDI outflows of South Korea of $9.8 million between 1970 and 1979 was more than four times that of Taiwan of $2.4 million in the same period, and the estimated stock of South Korean FDI at $142 million in 1980 was almost one and one-half times larger than that of Taiwan at $97 million.6 This provides evidence of the greater relative importance of South Korean FDI vis-à-vis Taiwanese FDI at the end of the 1970s.

The services sector was the most important sector of South Korean FDI at the end of the 1970s with a share of 57 per cent, followed by the primary sector (26 per cent) and the manufacturing sector (17 per cent). The importance of services in South Korean FDI reflected the prominence of trading (20 per cent), construction (13 per cent) and property (9 per cent). In terms of geographical destination, developing countries accounted for 72
per cent of South Korean FDI and developed countries for 28 per cent. Within developing
countries, the most important regions were South East Asia (43 per cent), Africa (21 per
cent) and the Middle East (7 per cent). By contrast, FDI in developed countries had been
far more concentrated in North America (23 per cent) than in Europe (3 per cent).

Four main types of outward FDI undertaken by South Korean MNCs was evident by
the end of the 1970s in order of declining importance: first, outward FDI to secure
supplies of essential raw materials to serve the South Korea-based industrial production
complex; second, outward FDI in trading, warehousing and transportation in major
foreign markets to promote growth of South Korean exports; third, manufacturing FDI to
supply host country markets or as export platform; and fourth, outward FDI in civil
construction and engineering-related works to facilitate growth of South Korean exports
of services of skilled and semi-skilled labour. Each of these types of South Korean FDI in
the 1970s is discussed below.

**FDI to secure supplies of essential raw materials**

The inherent poverty of South Korea in natural resources, the relatively poor performance
of the agricultural sector combined with the rapid growth of consumer goods industries
intensive in the use of natural resources as raw materials served to underscore one of the
ironies in South Korean industrial development in its high degree of dependence on
imports of natural resources. Indeed, the share of natural resources-related imports in the
country’s total commodity imports reached nearly 50 per cent in the 1970s and 1980s (Jo,
1981). As in the United Kingdom, Germany and Japan, the threat to the role of arms-
length trade in securing the vital natural resources and raw materials abroad to support
domestic industrial expansion precipitated the growth of resource extractive FDI by local
firms owing to market failure of various forms. In addition, there were other factors that
determined the growth of this type of FDI in the case of South Korea to do with the
worldwide energy crisis in the 1970s and the growing trend towards resource nationalism
on the part of resource-rich countries. Such changes in the international economic
environment prompted South Korean firms to intensify their efforts to secure access to
overseas natural resources, in most cases through the establishment of joint ventures with
local partners.

This explains why the primary sector, which accounted for some 26 per cent of the
stock of approved South Korean FDI at the end of the 1970s, was the most important type
of South Korean FDI. Of this share, the forestry sector accounted for 19 per cent, the
fisheries sector for 7 per cent, while mining accounted for an almost insignificant share of
0.35 per cent. The extraction of timber in countries of South East Asia that started in
1963 as previously mentioned became the predominant form of FDI of this type with the
intention of gaining assured access to timber supplies to support the growth of production
of the South Korean-based plywood industry which was also a major export industry
until the late 1970s. In this industry, joint investment ventures with majority South
Korean ownership prevailed since the investments which were concentrated in Indonesia
were implemented prior to the strengthening of resource nationalism in that country in
the late 1970s. South Korean FDI in the fisheries industry, though far less important by
comparison to FDI in timber extraction, was spread more evenly across the world except the Middle East and Oceania. About 80 per cent of South Korean FDI in this industry at the end of the 1970s was concentrated in Africa, 12 per cent in Latin America and about 6.5 per cent in North America. In their resource extractive FDI, South Korean firms provided capital and some technicians, although in some cases heavy equipment was also exported to their foreign subsidiaries (Koo, 1984).

**Export-oriented FDI in trading, banking, warehousing, transportation and distribution**

South Korean FDI in trading as well as FDI in transportation and warehousing which began in the late 1970s with the growing volume of South Korea’s international cargo (Koo, 1984) accounted for some 20 per cent of the stock of approved South Korean FDI at the end of the 1970s and thus was the second most important type of FDI during this period. The main geographical destination for South Korean FDI of this type was Africa (43 per cent), North America (27 per cent), Europe (12 per cent), and South East Asia (12 per cent).

This type of FDI had been a natural outcome as well as a cause of the rapid growth of industrial exports associated with the export-oriented industrialization phase of the South Korean economy. There were two factors that fostered the growth of South Korea’s industrial exports as well as export-oriented FDI in trading, banking, warehousing, transportation, distribution and marketing in support of such export expansion. The first factor was the important role of industrial exports in the finance of imports of natural resources, raw materials and intermediate inputs as well as food. The second related factor was the growth after 1974 in the aftermath of the first oil shock of protectionism in developed countries against industrial exports from developing countries. This served to undermine the basic premise of South Korea’s export-oriented growth that world markets would continue to purchase a constantly growing volume of South Korean industrial exports and provided the basis for the defensive motivation by many South Korean manufacturing companies and general trading companies as trading arms of the large South Korean conglomerates (chaebol) to set up overseas branch offices in sales or trading, warehousing facilities, and distribution channels in major export markets as a means to promote South Korean exports of consumer and producer goods.

This type of FDI can sometimes be regarded as a first step in the internationalization of export-oriented South Korean manufacturing firms. To ensure the continued growth of industrial exports in the face of the growth of protectionism and competition in major export markets, a number of South Korean exporting firms have attempted to integrate forward through the establishment of overseas branch offices in sales or trading, warehousing facilities, and distribution channels in their foreign markets. While the great majority of trading subsidiaries abroad were wholly owned or majority owned by South Korean firms, in a few cases joint investments were made with local partners to combine their production capabilities with their local partners’ marketing skills or to overcome unknown marketing systems in remote countries. Outward FDI of this type helped to increase South Korean exports substantially and in many cases also served to facilitate its
imports (Koo, 1984).9

Mention should also be made in the context of export-oriented FDI of South Korean banks that have similarly embarked in outward FDI in support of the growth of industrial exports of South Korea. A number of South Korean banks have set up overseas branch offices and in some cases through joint ventures in world financial and trading centres to tap foreign capital resources to support South Korean industrial growth and to accommodate the financial needs of South Korean exporters and investors (Jo, 1981).

**FDI in manufacturing**

This type of FDI which accounted for some 17 per cent of the stock of approved FDI in 1979 was the third most important type of South Korean FDI at the end of the 1970s. The first FDI of this type occurred in 1973 to manufacture food chemicals in Indonesia as well as cement in Singapore with investment stakes of $1.2 million and $1.3 million, respectively.10 By the end of that decade, the major geographical destination of South Korean manufacturing FDI had been South East Asia (49 per cent), Africa (38 per cent) and Oceania (7 per cent). Although the investments followed a product cycle trend in its concentration in lesser industrialized countries than South Korea in the same way as in the emergence of Japanese and Taiwanese MNCs, there were at least two exceptions in the South Korean case: the printing plant established in Japan in 1975 in which a South Korean firm had a 50 per cent investment share and a pulp project in New Zealand initiated in 1977 in which a South Korean firm had a 10 per cent investment share (Kumar and Kim, 1984).

The most important factors determining the location of international production by Korean manufacturing firms had been the availability in relative abundance of the necessary raw materials for industrial production such as *inter alia* lumber, limestone, pulp, and molasses. The majority of manufacturing FDI in the 1970s had been directed to developing countries in which South Korean firms had served previously through exports (Jo, 1981).11 Outward FDI in manufacturing had been predominantly domestic market oriented rather than a sourcing type of investment as seen by the far larger size of exports of South Korean parent companies to their foreign subsidiaries of raw materials or intermediate inputs by comparison to imports to South Korea from their foreign subsidiaries (Koo, 1984). Unlike in the case of Taiwanese manufacturing MNCs, only in a few cases have South Korean manufacturing MNCs initiated overseas manufacturing activities for the export of semi-processed raw materials to South Korea. This was the case with Sun Kyong Company that established an Indonesian subsidiary to manufacture plywood, part of which was exported to South Korea in anticipation of an impending prohibition by South Korea on the export of lumber (Kumar and Kim, 1984). What was far more common was export platform type of FDI in host countries as a base to export to third countries. Indeed, nearly one-third of South Korean overseas manufacturing projects as of 1980 have been primarily involved in export platform type of FDI facilitated by the ability of some South Korean manufacturing firms and trading companies to market merchandise exports in international markets (Kumar and Kim, 1984).

The most important manufacturing industries of South Korean FDI at the end of the
1970s were non-metallic mineral products, food, beverages and tobacco, paper and paper products, and basic metal (steel) products. These industries which accounted for 78 per cent of cumulative FDI in manufacturing as of 1977 were the industries whose growth and development was spawned by the later phases of import substitution industrialization of South Korea in the early 1970s and included not only consumer goods industries produced using labour intensive means of production with modest amounts of capital but also heavy and chemical producer and capital goods industries. These were industries in which South Korea’s comparative advantage was eroding rapidly because of its natural resource scarcity and the tide of resource nationalism in resource-rich foreign countries (Jo, 1981). An analysis of the type of firms engaged in outward FDI of this type showed that some 30 of the 37 manufacturing projects as of 1982 represented the horizontal integration of manufacturing firms, while only 7 projects were projects undertaken by general trading companies to secure semi-processed raw materials such as pulp and wool (Koo, 1984).

In particular, medium-sized manufacturing firms engaged in the semiskilled labour intensive domestic production of resource intensive products in South Korea predominated in generating outward FDI of this type in the 1970s. Owing in part to their new status as MNCs and unfamiliarity with the conduct of international business in foreign countries as well as the restrictions on foreign ownership particularly in developing countries, some 65 per cent of the overseas manufacturing projects of South Korean firms in this period (or 24 of the 37 manufacturing projects in 1982) and some 71 per cent of those in developing countries were those in which South Korean firms had minority equity participation. Nevertheless, although South Korean firms owned less than 50 per cent of the equity, in most cases the South Korean wielded control over the foreign operation as the major shareholder and the provider of superior skills in production, management, and marketing. In other cases, economic cooperation with host country government resulted in joint ventures of equal equity participation between the public corporations in the country and the South Korean firm. Only 8 of the 28 manufacturing projects in developing countries were either majority owned or wholly owned by South Korean firms. Majority-owned FDI occurred in the international production of food seasoning, steel rods, fountain pens, apparel, shoes, sanitary rubber products, cement and consumer electronic products which used mature technologies in their production and in which South Korean firms enjoyed a competitive advantage vis-à-vis firms in both developed and less developed countries (Koo, 1984).

The self-perceived ownership-specific assets of South Korean manufacturing MNCs were analysed by Kumar and Kim (1984) to lie in order of importance: the ability to initiate and operate overseas projects at relatively low costs, the suitability of their operating technology, the lower costs of their expatriate staff, the suitability of their products, and their skills in marketing. In fact, these firm-specific assets are not mutually exclusive as the price competitiveness of the firms is closely related to their lower costs of production (including lower costs of expatriate staff), the suitability of their operating technologies and products and their international marketing networks including those established by the South Korean general trading companies affiliated to several leading business groups which have also been instrumental in establishing necessary contacts
between South Korean firms and their collaborators in host countries. Indeed, one of the principal sources of competitiveness of South Korean manufacturing MNCs derived from the replication in foreign countries of production methods based on the adaptation of foreign technology and/or standardized process to relatively small scale of operations and some small or minor adaptation of product designs to the requirements of developing countries. Such technological advantages had emanated from the machine shops and assembly lines of South Korean plants during import substitution industrialization and had been cultivated through the process of learning by doing. Most of the technical modifications consist of the greater use of labour in the core process, including handling, packaging and storage together with greater use of manual quality control, more intensive machine maintenance, and the upgrading of lower quality raw materials into quality inputs via manual sorting (for example, wool and cotton yarn). South Korean manufacturing MNCs had also developed a greater cost competitiveness owing to the lower wages of technicians and semi-skilled and unskilled workers in host developing countries, and their more flexible business attitudes associated with their relatively small size and informal organization (Jo, 1981).

**FDI in civil construction and engineering**

Outward FDI by South Korea in civil construction and engineering which accounted for 13 per cent of the stock of approved FDI at the end of the 1970s was the fourth most important type of South Korean FDI in this period. The United States (43 per cent), the Middle East (35 per cent) and South East Asia (21 per cent) were the major host countries of South Korean FDI of this type.

As in the cases of the second and third types of South Korean FDI above, South Korean FDI in civil construction and engineering had been regarded by the South Korean government as another instrument to promote the growth of exports of South Korean goods and services generally as well as to compensate for the high import dependence of the South Korean economy for natural resources and raw materials as well as for agricultural produce. The direct exchange of crude oil for exports of construction services as part of outward FDI in civil construction and engineering in the nations comprising the Organization of Petroleum Exporting Countries (OPEC) in the 1970s is an excellent case in point. In addition, some South Korean consulting engineering companies also embarked on international operations by the end of the 1970s, particularly in the Middle East to meet the growing technical needs of South Korean and local firms. These firms have played a catalytic role in the promotion of joint ventures on the basis of their broad international contacts and accumulated technical expertise (Jo, 1981).

The competitive assets of South Korean civil construction contractors and workers derived from accumulated technical and organizational capabilities as well as long experience in large-scale overseas civil construction projects developed during the Vietnam conflict. South Korean contractors had competitive advantages over their foreign competitors in the supply of skilled and semi-skilled manpower and sophisticated and specialized modern construction equipment and construction materials through exports from their parent companies, the use of modern labour intensive technology for
construction and engineering-related operations, and flexible attitudes in dealing with local authorities (Jo, 1981). The provision of capital goods, however, was not a strong feature of a majority of South Korean construction companies; it was evident in only 4 of the 33 overseas construction projects of South Korean firms in 1982 (Koo, 1984).

As in the case of overseas manufacturing projects, some 64 per cent of overseas construction projects of South Korean firms in 1982 (or 21 of the 33 projects) were those in which the South Korean civil construction companies and engineering companies had minority equity participation. In particular, less than majority owned joint ventures had been particularly concentrated in Saudi Arabia where the largest investment stakes had been made (16 of the 21 projects) (Koo, 1984). Their main reason for establishing joint ventures with local Arab partners was that local participation was a legal requirement to be eligible for competitive bidding in many classes of contracts. In other cases, where local participation was not formally required but in which there was the practice of treating local firms more favourably to foreign firms in awarding construction contracts, South Korean contractors also concluded joint venture arrangements with local partners. Nevertheless, despite the minority equity participation of South Korean construction companies it was most often the case that these companies had effective control since their local joint venture partners lacked necessary skills, capital and experience to carry out large-scale development projects. Thus, the formation of joint ventures can be regarded in most cases as mere formalities to bypass host governments’ restrictions and facilitate the conduct of business in foreign countries (Koo, 1984). In other cases, joint ventures fulfilled a more important role in overcoming the weaknesses of South Korean firms in heavy engineering and chemical processing technology. This explains the joint venture between one South Korean firm and an American contractor in order to combine South Korean manpower with advanced foreign technology and engineering know-how (Jo, 1981).

**The expansion of South Korean FDI in the 1980s**

The decade of the 1980s represented an era of rapid growth of South Korean FDI. Based on balance-of-payments data, the annual average FDI outflows of South Korea was about 8114.6 million in the period between 1980 and 1989 compared to $9.8 million in the period between 1970 and 1979, and the estimated stock of actual South Korean FDI reached $1.4 billion in 1989 compared to $141.9 million in 1980. Despite the rapid growth in South Korean FDI over the 1980s, such growth was not as rapid as that of Taiwanese FDI which made Taiwan assume greater relative importance as a home country for FDI at the end of the decade. On an approved basis, the stock of South Korean FDI at also $1.4 billion in 1989 compared to that of Taiwanese FDI at $1.5 billion. The greater relative importance of Taiwanese FDI compared to South Korean FDI at the end of the 1980s is even more evident in the analysis of actual FDI flows in terms of balance-of-payments data and the size of the outward FDI stock. The annual average FDI outflows of Taiwan of $1.2 billion in the period between 1980 and 1989 as indicated in the previous chapter was more than ten times as large as that of South Korea.
at $114.6 million and thus the estimated stock of outward FDI of Taiwan which reached $7.6 billion in 1989 was more than five times as large as that of South Korea at $1.3 billion. Indeed, the 1980s marked the decade in which the Taiwanese MNCs had overtaken the South Korean MNCs in terms of the size of their outward FDI.

Despite the less dramatic rate of growth of South Korean MNCs compared to Taiwanese MNCs over the decade of the 1980s, there were important economic and political forces that explain the growth as well as major structural changes in the pattern of South Korean FDI in that decade. The economic pressures that contributed to this phenomenon were similar to those faced by Taiwan in the same decade but perhaps on a much lesser scale in the case of South Korea. South Korea similarly experienced rapid export expansion in the 1970s and 1980s which made South Korea one of the world’s most significant trading nations, and enabled the country to accumulate a balance-of-trade surplus since 1986. As in the case of Taiwan, this led South Korea’s major trading partners, particularly the United States, to impose protectionist trade pressures in the mid-1980s to circumvent the growing deficits of the United States in its trade with South Korea. For both Taiwan and South Korea, the problem was compounded by the sharp appreciation of their currencies since 1985 resulting from strong export growth and current account surpluses, the deliberate imposition of a restrictive monetary policy to combat inflation by raising interest rates and tightening domestic credit as well as pressures from the United States to redress the persistent trade imbalances between their countries by allowing both the New Taiwan dollar and the Korean won to rise. Between the end of 1985 and the end of 1990, the Korean won appreciated 19.5 per cent against the United States dollar.

The strength of the Korean won thus provided the financial motivation for outward FDI by South Korean firms. This once again lends support to Aliber’s theory of FDI emanating from strong currency areas as a determinant of the timing of FDI and its growth (and particularly that of foreign takeovers) as well as fluctuations of outward FDI flows around a long-term trend (Aliber, 1970). The financial explanations of the growth of FDI owing to strong domestic currencies has historical antecedents in Britain in the nineteenth century, the United States in the early post-war period and Japan and Germany in the 1970s and 1980s (Cantwell, 1989a) as well as Taiwan as shown in the previous chapter. However, in the case of South Korea, the growth of outward FDI in the 1980s was less of an ‘exercise in financial power’ (Redies, 1990) compared to Japan in the 1970s and 1980s and Taiwan in the 1980s and 1990s where the financial factors in explaining FDI expansion extended beyond large financial surpluses created from net exports, the upward revaluation of the Japanese yen and New Taiwan dollar and the accumulation of the world’s largest foreign exchange reserves. In the case of Japan and Taiwan, the accumulation of large financial surpluses in those years was also created from the high domestic savings rates and the escalation in acquired wealth owing in part to the emergence particularly in Japan of a ‘bubble’ economy in which asset and land prices increased enormously. This was not the case in South Korea where there was a severe shortage of domestic savings and a large demand for foreign exchange until the late 1980s (see Kim, 1990).

In turn, local currency appreciation spurred rising labour costs in South Korea as in
Japan and Taiwan which in addition to the increasingly adverse international trading environment undermined the competitiveness of domestic labour intensive industries of South Korea. The basis of competitiveness of these industries derived from the state’s policy of wage suppression and the political subordination of popular sectors (i.e. middle stratum of professionals, skilled workers, businessmen and farmers) to the state (Shin and Lee, 1995). Although the problem of rising labour costs is broadly parallel to economic developments in Japan at the end of the 1960s and in Taiwan in the late 1980s which in combination with the sharp upward revaluation of the local currency led to the weakening of the traditional labour intensive industries (see Chapters 9 and 10 of this book), the basis of the rise in labour costs differed in the case of Japan on the one hand, and Taiwan and South Korea on the other. In the case of Japan, the success of domestic industrial restructuring towards modern capital intensive heavy and chemical industries at the end of the 1960s enhanced labour productivity owing to high capital to labour ratios and this perpetuated a continuous cycle of rising wages (Cohen, 1975; Kojima, 1978; Ozawa, 1979b). In Taiwan and South Korea, on the other hand, not only did the shortage of low skilled labour create pressures that drove up industrial wages but also democratization and political liberalization led to increased labour organization and activism and wage demands by labour unions. The presence of severe labour unrest in South Korea (more than 7,000 labour strikes between 1987 and 1989) following democratization measures implemented by President Roh Tae-Woo in the Declaration of 29 June 1987 combined with South Korea’s rapid economic growth of more than 9 per cent between 1982 and 1991 caused marked wage increases in South Korea since 1987 (Shin and Lee, 1995). Unlike in Japan, the wage increases in Taiwan and South Korea in the late 1980s were not matched by productivity growth (see van Hoesel, 1997; Kim, 1990).

South Korea responded to these compelling economic and political forces by encouraging outward investment, particularly by manufacturing firms and sustaining export growth. A significant shift in government policy favouring outward FDI in South Korea in light of the new requirements of international competition and changing comparative advantage was regarded as consistent with parallel efforts on domestic industrial restructuring towards more modern manufacturing industries in the long term. This entailed not only the gradual liberalization of foreign investment policy starting from 1986 but also the adoption of a more pro-active role by the South Korean government to promote outward FDI. Just as there had been broad parallelisms in the implementation of foreign exchange controls in Japan in 1949 and in South Korea in 1968, there had also been parallel trends in the liberalization of outward FDI policy in the two countries. As shown in Chapter 9, the substantial increases in domestic labour costs in Japan in the late 1960s, the appreciation of the yen, the emerging balance-of-payments surpluses and the growing natural resource requirements of a rapidly expanding resource-scarce industrial economy contributed to the gradual liberalization of controls over outward FDI in Japan between 1969 and 1978. Such gradual liberalization of Japanese FDI policy was replicated in content and style to that of South Korean FDI policy since 1986 and culminated in the seventh five-year plan of the segyehwa (globalization in Korean) programme over the period 1993 and 1997. Having created the necessary policy conditions with the South Korean government playing a less dirigiste role, South
Korean FDI successfully flourished starting in the late 1980s. Indeed, the stock of approved South Korean FDI tripled between 1985 and 1989 from $476 million to $1.4 billion.¹⁷

Not only was there rapid growth in South Korean FDI in the 1980s but major structural changes were manifested in the pattern of such FDI by the end of that decade. By comparison to the end of the 1970s when services was the most important sector of South Korean FDI with a share of 57 per cent, followed by the primary sector (26 per cent) and manufacturing (17 per cent), the emergence of mineral extraction as a strategic priority for South Korean resource development companies made the primary sector become the preeminent sector of South Korean FDI at the end of the 1980s with a share of 43 per cent, followed by manufacturing (33 per cent) and services (24 per cent). The supremacy of the primary sector at the end of the 1980s was on account of the necessity to acquire stable raw material supplies (particularly minerals) for the sustained development of many domestic industries in the face of strengthening resource nationalism in many resource-rich developing countries (Koo, 1984).

In addition, the ascendancy of the manufacturing sector has been due to the erosion of South Korea’s comparative advantages in labour intensive industries as a result of economic and political forces of the decade: rising balance-of-payments surplus, trade barriers, appreciating Korean won, rising wage costs and increasing labour conflicts. While these economic pressures affected adversely the small- and medium-sized enterprises in labour intensive industries which determined their major surge as MNCs in this decade as opposed to their Taiwanese counterparts which emerged in a more major way as MNCs in the 1990s (see Chapter 10), the trade barriers and appreciating Korean won also served to affect adversely the chaebols, the large South Korean conglomerates whose growth posed a direct competition to producers in South Korea’s major trading partner countries. Thus, two new types of manufacturing firms were responsible for the growth of South Korean manufacturing FDI in the 1980s: the small- and medium-sized firms that transplanted their labour intensive production to developing countries in South East Asia with cheaper labour costs, and the chaebols that invested in tariff factories in the United States and Europe. The different determinants of South Korean manufacturing FDI in developed and developing countries is supported by a formal analysis of the motivations of South Korean FDI in the manufacturing sector of both developed and developing countries as of 31 December 1989. Based on firm-level data, Jeon (1992) showed that firm size, the real growth rate of the South Korean economy and non-tariff barriers in the developed countries exerted highly significant positive influences on South Korean FDI in manufacturing in developed countries. This implied that large South Korean manufacturing firms at a time of rapid growth of the South Korean economy established production facilities in the developed countries to evade the rising tide of trade protectionism.¹⁸ On the other hand, the exploitation of the cheap labour exerted a highly significant positive influence on South Korean FDI in manufacturing in developing countries since 1987. But it was the initiation and rapid growth of major investments in manufacturing by South Korea in the 1980s by the chaebols whose investments en masse in the United States to secure their largest foreign market that explains the greater geographical concentration of South Korean FDI in the developed
countries at the end of the 1980s.

Thus, the shifts in the sectoral pattern of South Korean FDI had also been reflected in the geographical destination of South Korean FDI. Accordingly, while in 1979 developing countries accounted for 72 per cent of South Korean FDI and developed countries accounted for 28 per cent, developed countries became the dominant recipient of South Korean FDI in 1989 with a share of 54 per cent, while developing countries had a share of 46 per cent. The dominance of the developed countries reflected not only the large-scale growth of manufacturing FDI by the *chaebols* but also the large-scale mining development projects by South Korean firms in the resource-rich developed countries. As a whole, the relative importance of North America as a host region increased significantly from 23 per cent of the stock of approved South Korean FDI in 1979 to 41 per cent in 1989. Other important developed host regions were Oceania (9 per cent) and Europe (4 per cent). In developing countries, the major recipients continued to be South East Asia (28 per cent) and the Middle East (12 per cent), the latter owing to the construction boom and the large petrochemical projects by South Korean firms in the OPEC countries (Kim, 1990).

Five main types of outward FDI undertaken by South Korean MNCs could be distinguished at the end of the 1980s in order of declining importance: first, outward FDI to secure supplies of essential raw materials to serve the South Korea-based industrial production complex; second, outward FDI to supply host country markets in developed countries and to gain access to advanced technologies; third, outward FDI in trading, warehousing and transportation in major foreign markets to promote growth of South Korean exports; fourth, manufacturing FDI in developing countries to supply host country markets or as export platform; and fifth, outward FDI in civil construction and engineering-related works to facilitate growth of South Korean exports of services of skilled and semi-skilled labour. Each of these types of South Korean FDI in that decade is discussed below.

**FDI to secure supplies of essential raw materials**

The primary sector which accounted for some 26 per cent of the stock of approved South Korean FDI at the end of the 1970s became an even more important sector by the end of the 1980s with a dominant share of 42 per cent of the stock of approved South Korean FDI. As mentioned, the predominant role of FDI of this type owed much to the emergence of mining (including oil) as an important sector starting in the late 1970s and through the 1980s in the midst of strengthening resource nationalism in many resource-rich developing countries to secure stable mineral supplies for the domestic heavy and chemical industries whose growth had been given priority in South Korea in the 1980s. This reflected the situation of Japan in the late 1950s to the early 1970s which prompted the second phase or the Ricardo-Hicksian trap stage of Japanese internationalization. Thus, while in 1979 the forestry sector accounted for 19 per cent of the stock of approved South Korean FDI, the fisheries sector for 7 per cent, and mining accounted for an almost insignificant share of 0.35 per cent, by 1989 the mining sector accounted for one-third of the stock of approved South Korean FDI, while forestry accounted for 6 per cent and
fishing, 4 per cent. Mining was the single most important sector of South Korean FDI. The magnitude of the overseas mining investments by South Korean public and private industrial companies as well as in some cases by trading companies dwarfed investments in all other industries and resulted in the sizable increase in the scale of South Korean FDI over that decade.

As of 1989, there were some 30 resource extractive FDI projects by South Korean firms conducted in different regions of the world: 7 projects for bituminous (soft) coal; 2 projects for anthracite (hard coal); 5 projects for uranium mining; 9 projects for oil; 2 projects for timber development; 1 project each for the mining of manganese, sulfur, iron and steel, chrome and talc (Korea Institute for Foreign Investment, 1989). These were the primary products most crucial to South Korea’s industrial development. Whereas the South Korean state companies were responsible for the resource extractive investments in oil and uranium, the private companies were more active investors in other mining projects. The mining projects were located all over the world in developed and developing countries where the required mineral resources and petroleum were present in abundance. Among the major host countries were Indonesia, Sri Lanka, the Philippines, the United States, Australia, Canada, North Yemen, Malaysia, Thailand, China and the Soviet Union (Korea Institute for Foreign Investment, 1989).

The majority of the mining projects undertaken by South Korean firms in the 1970s and 1980s were in the form of wholly owned subsidiaries particularly where the parent companies were the direct buyers or users of the extracted resources (as was the case with manufacturing companies). The 100 per cent ownership enabled the security of obtaining stable supplies of raw materials at the most favourable prices. On the other hand, the minority of overseas mining investment projects undertaken in the form of joint ventures were those initiated by a trading company or, more often, several trading companies undertaking joint investment projects which were not direct users of the natural resources, but nevertheless provided finance in the form of loans for mineral exploration (Koo, 1984).

Investments in the forestry sector was the second most important South Korean FDI of this type. This involved the continuing importance of assuring timber and wood supplies to meet the requirements of the furniture industry whose domestic production and exports had been rising faster than that of the plywood industry. Although as previously mentioned the plywood industry was a major South Korean export industry until the late 1970s, it suffered a loss of comparative advantage since owing to the rising competition from timber-rich countries (Koo, 1984).

Finally, mention must be made of South Korean FDI in agriculture in the 1980s of which the most significant were for the purpose of raising cattle and livestock in Australia, Canada and the United States. Haitai Dairy Corporation, one of the largest food companies in South Korea, has long been engaged in livestock farming in Australia; this venture has provided a stable source of cattle and livestock products to its parent company in South Korea (Korea Institute for Foreign Investment, 1989).
FDI in developed countries to supply local markets and to gain access to advanced technologies

South Korean FDI in the developed countries in the 1980s of the type described above had three important determinants. The first determinant was to protect or retain existing export markets of South Korean goods by supplying host country markets in developed countries through international production in the face of protectionist trade barriers, primarily in the case of electrical and electronics products targeted to the export market of the United States. Indeed, as indicated above in the work of Jeon (1992), South Korean FDI in the developed countries over the 1980s was associated primarily with the maintenance of access to markets in the face of trade barriers. The second determinant of FDI of this type stems from South Korea’s interest to gain access to more sophisticated and advanced forms of manufacturing technology to support rapid industrial development (World Bank, 1989; Brody, 1986). The third determinant was to establish new markets in the developed countries by the provision of services (such as banking and finance, construction, hotels, etc.) aimed at meeting local market demand.

This type of FDI which was not a significant aspect of South Korean FDI at the end of the 1970s was a new type of South Korean FDI that developed in the 1980s. In fact, it became the second most important type of South Korean FDI at the end of that decade with a share of at least 25 per cent of the stock of approved South Korean FDI in 1989. Some 81 per cent of South Korean FDI in developed countries involved the manufacturing sector to fulfil the above two determinants and only 19 per cent were in services.

Import substituting FDI in the developed countries

Two types of import substituting FDI in developed countries can be distinguished. The first type is manufacturing FDI to overcome trade restrictions in major export markets. This involved FDI by major South Korean firms producing television sets, video cassette recorders (VCRs), computers, microwave ovens, steel and compact cars. The second type is FDI by horizontally integrated South Korean manufacturing firms that produce for segmented markets or niche markets in the developed countries of North America and Europe specific idiosyncratic products such as high fashion goods (women’s clothes or men’s suits), textiles, furniture, noodles and other food products, etc. The first type, which is by far the more important type of South Korean import substituting FDI in the developed countries and one that grew considerably over the 1980s and the 1990s, is discussed below.

The major recipients of both types of import substituting FDI over the 1980s were the United States, Canada and Europe. North America was the dominant recipient as shown by their 55 per cent share of the stock of approved South Korean FDI in the manufacturing sector in 1989. The growth of South Korean manufacturing FDI in the United States, in particular in the 1980s, owed much to the growth of the domestic consumer electronics industry in South Korea whose size is second largest in the world.
after Japan (van Hoesel, 1997). The growth of domestic production and export boom in the industry led to the suspension by the United States of South Korean export privileges in electronics products under the Generalized System of Preferences in January 1988 (Kim, 1996) and the imposition by the United States of trade barriers in the form of tariffs such as countervailing duties and anti-dumping duties as well as non-tariff barriers such as voluntary export restraints to restrain the growth of American imports from Japan and the Asian newly industrialized countries. In addition to imposing these trade barriers, the United States insisted on a ‘levelling of the playing field’ by placing pressures on these countries to liberalize their domestic markets and practice fair trade. In a wide-ranging move to attempt to correct its trade deficits with its major trading partners, the United States initiated action against alleged dumping practices by South Korean firms in order to curb the growth of South Korean exports, and the United States Congress passed the Omnibus Trade and Competitiveness Act in 1988. Section 301 of this legislation required the United States Trade Representative to identify those foreign countries that have erected systematic barriers against exports of the United States and to launch mandatory investigations against every identified trade barrier and unfair trade practice. Although this law expired in 1990, the United States persisted with unilateral trade restrictions (Strange, 1993). In addition, with effect from January 1989 the four Asian newly industrialized countries were graduated from the Generalized System of Preferences of the United States on grounds of having achieved a certain level of economic development and competitiveness (Chia, 1989).

The South Korean firms responsible for the large-scale import substituting FDI geared to overcome trade restrictions in the developed countries were the chaebols whose emergence and growth was fostered by the South Korean government in its effort to accelerate domestic industrial development in large-scale, complex and technologically advanced industries through high industrial concentration. This has historical antecedents in Japan where the Japanese government similarly supported the emergence and development of the keiretsu to perform a similar function.

The ‘tariff factories’ in the developed countries were established by firms producing consumer electrical and electronic goods, cars and steel products. In consumer electrical and electronics production, FDI in the United States and Europe was led by the three largest companies in the highly oligopolistic South Korean consumer electronics industry: Samsung Electronics (SEC), the Goldstar Company (now known as Lucky Goldstar (LG) Electronics) and Daewoo Electronics. In the car industry, Hyundai Motor Company’s FDI in Canada was also initiated in the 1980s (Kim, 1990). However, one of the largest manufacturing projects undertaken by South Korean firms during the 1980s was that of the state-owned Pohang Iron and Steel Company in a joint venture with US Steel Corporation to escape trade restrictions on Pohang’s export of iron and steel products to the United States (Korea Institute for Foreign Investment, 1989). The large scale of the manufacturing FDI by the chaebols combined with the even larger scale of mining projects overseas by South Korean industrial companies and general trading companies ensured that the overall scale of South Korean FDI in the 1980s was significantly larger than that in the 1970s.

In the first instance, the chaebols conducted their final assembly production in the
developed countries as a means of overcoming trade restrictions. Although the cost of labour in developed countries was higher relative to that of South Korea, the final products remained competitive in those markets since the parent companies in South Korea were the main source of raw materials, intermediate products or components at relatively reasonable costs. The initiation of South Korean FDI of this type in defence of export markets threatened by trade barriers was premature, as seen in the higher cost of local production in a host country by comparison to the cost of exporting from the home country prior to the imposition of trade barriers (Jun, 1990).27

Although Europe has also been a major export market of South Korea, it was a far less important destination for South Korean manufacturing FDI at the end of the 1980s, with a share of less than 6 per cent of the stock of approved South Korean FDI in 1989. The growth of South Korean FDI in Europe during the late 1980s was induced significantly by protectionism in the former European Community and anti-dumping duties rather than by the impending formation of the Single European Market (Young et al., 1991). This view is supported by the fact that peak period of South Korean FDI flows in Europe—1988 and 1989—coincided with the highest levels of actual or threatened imposition of anti-dumping duties by the European Commission on South Korean exports to Europe. SEC, LG Electronics and Daewoo Electronics were once again the prominent chaebols to invest in Europe in electrical and electronics production (van Hoesel, 1997; Korea Institute for Foreign Investment, 1989).28

The emergence in a major way of South Korean manufacturing FDI in the developed countries seems to suggest that the pattern of South Korean FDI in the 1980s reached the third stage of Japanese FDI in assembly-based, sub-contracting dependent, mass production of consumer durables such as cars and electrical and electronic goods. The principal ownership-specific advantages of South Korean chaebols stem from a cost advantage, commitment and dedication of their managers, appropriate technologies for small-scale production, and support and willingness of parent firms to absorb initial operating losses of foreign subsidiaries. However, unlike the strong technological innovatory capacities and marketing skills of American and Japanese MNCs, the firm-specific advantages of South Korean manufacturing firms have proven to be far from sustainable. This helps to explain the low and declining profitability of South Korean electrical and electronics firms in the United States and Europe over the 1980s, and the virtual closure of the American production plants of SEC and LG Electronics in 1989 and their relocation to Mexico (Choi and Kenny, 1995).

The imposition of stricter local content requirements by the United States and Europe for consumer electrical products and cars, including the levy in the late 1980s of anti-dumping duties by the United States government on the intra-firm trade of intermediate products such as picture tubes for television sets between the South Korean parent companies and their assembly subsidiaries in the United States had served to exacerbate the effects of the continued appreciation of the won and labour cost increases in South Korea in the second half of the 1980s in threatening the cost advantages of products produced by final assembly plants of South Korean firms in these countries. Similar pressures for greater local value added by foreign manufacturers in Europe have been driven by the Screw Drive Regulation in Europe, a trade agreement that binds Japanese,
South Korean and other foreign manufacturing plants to increase their local procurement of parts or intermediate products from 20 per cent to 40 per cent in 1989 based on added value (van Hoesel, 1997).

At the end of the 1980s, South Korean manufacturing firms responded to demands for higher localization in the United States and Europe in various ways. The four electrical and electronics goods producers—SEC, Daewoo Electronics, LG Electronics and Saehan Media Co.—have either completed or planned to construct six factories in the European nations to produce parts of final goods at the end of the 1980s. The cost competitiveness of South Korean products in Europe will also be enhanced by their FDI in Central and Eastern Europe as a low-cost production base from which to supply the prosperous markets of Western Europe owing to the low labour costs, preferential access to European Economic Area and anticipated future membership of the European Union (Randerson and Dent, 1996). In North America, LG Electronics set up a plant in Mexico to produce colour TV chassis for its final assembly plant in Huntsville, Alabama, thus availing of Mexico’s duty-free access to the United States. These companies and other companies have also responded through the establishment of plants in South East Asia as a means to build their market shares in the region or to use as an export platform to counter their weakening competitiveness and avoid the increasing protectionism in the advanced countries (Korea Institute for Foreign Investment, 1989).

**FDI in developed countries to gain access to advanced technologies**

An important aspect of South Korean FDI in the developed countries which started to emerge in the 1970s but grew significantly in the 1980s was investments in R&D firms in the United States to develop sophisticated technology and know-how to support South Korea’s objective to upgrade its domestic production and exports of products embodying higher skills and advanced technologies (Nishimizu and Robinson, 1984; Euh and Min, 1986). In the 1970s the form of the investment involved the takeover of an American research intensive company by a medium-sized South Korean company which is then used as a base for the development of appropriate technical knowledge, new processes and new product designs as well as the assembly of sophisticated technical components for export to South Korea.

In the 1980s, South Korean FDI of this type grew in importance and manifested mainly in the establishment of R&D laboratory facilities in the Silicon Valley of the United States through acquisition. This included Zynos Corporation, Cordata Technology Inc. of Daewoo Group (computer products and design), Lucky-Biotech Corporation, Maxon System (computer) and Goldstar Technology, among other numerous examples (Korea Institute for Foreign Investment, 1989). The chaebols have been at the forefront of FDI of this type which enabled their entry into more technology intensive products such as semiconductors and telecommunications products and led to the domestic industrial upgrading of the South Korean economy (see also Westphal et al., 1984).

Nowhere is the role of research-based FDI key to the creation of capabilities of South Korean firms in more advanced products such as semiconductors than in the case of SEC. Samsung established an R&D institute, Samsung Semiconductor Inc. (SSI), at Silicon
Valley in May 1983 to serve as a platform to develop 64K and 256K dynamic random access memory (DRAM) chips in its role as a training post for South Korean experts and a collector of information about the latest developments in technology and markets for semiconductors. Through SSI, SEC recruited several United States-trained South Korean experts which eventually played a key role in developing and commercializing DRAM chips with the help of designs obtained from Micron Technology, a medium-sized DRAM chip producer in the United States, as well as from Sharp—the only source of process technology for 16K SRAM and 256K ROM technology—for the process development of 64K DRAM chips whose mass production was started in mid–1984.

For the development of 256K DRAM, the designs of Micron Technology were subjected to extensive reverse engineering (Ernst, 1994), a means of technological learning adopted by South Korean firms in the development of VCRs and microwave ovens in the late 1970s (Kim, 1996). This process of extensive reverse engineering in the development of 256K DRAM chips involved the adoption of a dual strategy in which two teams based in Silicon Valley and in a South Korea-based laboratory started the same work simultaneously. The 256K DRAM chip sample created by the South Korea-based team in October 1984 was developed by the Silicon Valley team in early 1985, and mass production was started in April 1986 (Ernst, 1994). Subsequently, Samsung developed more advanced DRAM products in a similar way: 1M DRAM (July 1986), 4M DRAM (February 1988), 16M DRAM (September 1990) (Kim, 1996).

**FDI to establish new markets in the developed countries by the provision of services to meet local market demand**

This type of FDI had become significant in the 1980s particularly in the banking and hotels industries. More South Korean banks have tried to establish foreign affiliates worldwide in the 1980s in accordance with the expansion of their business area, as have large chaebols which began in the 1980s to participate in the hotel business overseas. This is reflected in the acquisition by the Hanil Development Corporation of the Inter-Alaska Hotel Inc. in Alaska in the second half of 1988, and the development of a 200–room hotel in California by the South Korean construction company, Ssangyoung (Korea Institute for Foreign Investment, 1989).

**Export-oriented FDI in trading, warehousing and transportation**

South Korean FDI of this type continued to be important as a means to continually promote industrial exports in the face of protectionism and competition in major export markets as well as to facilitate imports of vital raw materials and intermediate products for South Korean industrial development. Thus, in the 1980s South Korean industrial enterprises established more overseas trading companies or increased their equity investment in existing overseas trading subsidiaries as a means also of supporting the requirements of higher local content in the developed countries (Korea Institute for Foreign Investment, 1989).
Manufacturing FDI in developing countries to supply host country markets or as export platform

This is the fourth most important type of South Korean FDI with a share of some 12 per cent of the stock of South Korean FDI at the end of the 1980s. Two major types of manufacturing FDI in developing countries can be distinguished. The first type is manufacturing FDI by firms in major export industries in the form of export platform to overcome trade restrictions in export markets and to circumvent the declining comparative advantages of South Korea for labour intensive production. The second type is manufacturing FDI to produce standardized products such as fountain pen, adhesives, construction materials, cement, plastic products, photo albums, batteries, gas ranges, food chemicals and other products for developing countries in South East Asia, South Asian countries, Middle East and China (Korea Institute for Foreign Investment, 1989). While this second type of South Korean manufacturing FDI had been the important type of South Korean manufacturing FDI when South Korean manufacturing MNCs first emerged in the 1970s and continued to grow in the 1980s, it is the first type that has grown most rapidly in the second half of the 1980s and became characteristic of the major type of South Korean manufacturing FDI in developing countries.

Two kinds of South Korean firms invested in the export platform type of manufacturing FDI in developing countries. First, the smaller- and medium-sized firms in labour intensive industries relocating their production to more cost competitive labour abundant developing countries. This included firms in such industries as textiles, clothing and footwear, toys, etc. Second, the larger firms and the chaebols in more capital intensive industries that relocate the labour intensive stages of their production processes in labour abundant developing countries. This included the producers of TV sets, refrigerators, washing machines, computers and other industrial electronics components. In the 1980s, the major host countries for South Korean export platform FDI had been Indonesia, Thailand, Malaysia, Sri Lanka, Philippines that are in close geographical and cultural proximity to South Korea, and also countries of Central America and the Caribbean (Korea Institute for Foreign Investment, 1989). The export platform international production in these countries enabled the reduction of labour costs, the circumvention of trade barriers and access to any preferential trading arrangements such as Generalized System of Preferences of host countries with South Korean export markets. In addition, the investments in the Caribbean countries have the added advantage of being in close geographical proximity to North America, thus saving on transportation costs and transit time in shipping the export products to that market (Tolentino, 1993).

South Korean FDI by small- and medium-sized firms in labour intensive industries had increased steadily since the second half of the 1980s. While accounting for less than 2 per cent of the stock of approved FDI before 1985, their share increased to 4.5 per cent in 1988 and 31.5 per cent in the first quarter of 1989 (Jun, 1990). A multinomial logistic regression model estimated by the maximum likelihood method indicated that outward FDI of a sample of 151 South Korean textile and clothing companies in 1988 (taken from a population of 673 firms) was determined significantly by tariffs, labour costs and export
experience but not by the appreciating Korean won (Jong, 1990). A similar set of determinants have propelled the expansion of outward FDI by major South Korean companies in the electrical and electronics industries (Korea Institute for Foreign Investment, 1989), including SEC. SEC established two production affiliates for final goods in South East Asia in the late 1980s: the first one was TSE in Thailand founded in 1988 for the production of colour TVs, VCRs and washing machines, and the second one was SMI in Indonesia founded in 1989 for the production of refrigerators (Kim, 1996).

**FDI in civil construction and engineering**

This was the fifth most important type of South Korean FDI with a share of at least 3 percent of the stock of approved South Korean FDI at the end of the 1980s. As in the previous decades, the investments were concentrated in the Middle East to participate in the construction projects of the OPEC countries (Kim, 1990), but investments in other parts of the world have also been notable as seen in the $56.5 million investment of Daewoo in the construction of a tourist hotel in Algeria (Korea Institute for Foreign Investment, 1989).

**The growth of South Korean FDI in the 1990s**

The 1990s represented the decade of the most rapid expansion of South Korean FDI. Based on balance-of-payments data, the annual average FDI outflows of South Korea was $2.7 billion in the period between 1990 and 1998 compared to $114.6 million in the period between 1980 and 1989 and $9.8 million in the period between 1970 and 1979. Thus, the estimated stock of South Korean FDI reached $21.5 billion in 1998, some 57 per cent of the stock of Taiwanese FDI of $38 billion.

Unlike in the 1980s when financial factors influenced the expansion of South Korean FDI owing to financial surpluses created from net exports and the upward revaluation of the Korean won between 1986 and 1990, this situation was overturned over the 1990s with the slower growth of exports and the depreciation of the Korean won. In fact, the growth of South Korean FDI in the 1990s was sustained despite an inherent financial weakness of the Korean chaebols. Thus, unlike the 16.8 per cent appreciation of the Korean won against the United States dollar between the end of 1986 and the end of 1990, there was a 136.6 per cent depreciation of the Korean won against the United States dollar between the end of 1990 and the end of 1997.\(^{31}\) To the extent that financial factors played a role in explaining the most rapid expansion of Korean MNCs in the 1990s, it owed much to the role of the chaebols as institutions created by the South Korean government to accelerate domestic industrial development in large-scale, complex and technologically advanced industries through high industrial concentration. The close relationships between the government and the chaebols was manifested in the traditional roles of the former in setting policies and in the control of the latter’s access to capital to finance their growth and diversification, including through outward FDI.\(^{32}\) Notwithstanding the envisaged restructuring of the chaebols under the segyehwa
movement between 1993 and 1997, the chaebols became more powerful and larger with their continued expansion into new industries and markets financed on the basis of low-interest bearing loans from their government. However, the capacity of the over-leveraged chaebols to service their amassed debts have been constrained by the onset of foreign competition associated with domestic market deregulation in the segyehwa movement and the weaker markets for computer chips in 1996 which led to domestic economic difficulties in South Korea as well as a 27 per cent deterioration in the South Korean terms of trade in the three years prior to September 1997 and associated current account deficits (World Bank, 1998). These negative factors have been exacerbated by the Asian financial crisis that started in 1997 which affected South Korea greatly and limited the capacity of the government to fulfil its traditional role as a provider of low-cost capital to the chaebols—the basis of the country’s past economic miracles and a contributory factor to its economic débâcles in the late 1990s (Tolentino, 1997). While the full repercussions of all these compelling forces on South Korean FDI have yet to be observed and analysed fully in the future, Korean FDI outflows in the period since the financial crisis would be determined by the need to overcome the inherent financial weakness of the Korean chaebols through more aggressive and extensive penetration of foreign markets through outward FDI as a means to service large amounts of accumulated debt as well as the need to seek alternative sources of finance in international capital markets.

Not only was there rapid growth in South Korean FDI in the 1990s but major structural changes was manifested in the pattern of South Korean FDI in that decade. By 1995, manufacturing became not only the largest economic sector of South Korean FDI but also the dominant sector with a share of 59 per cent of the stock of approved South Korean FDI, a significant growth from its one-third share at the end of the 1980s, and 17 per cent share at the end of the 1970s. Thus, in contrast to the growth of Taiwanese MNCs in which the relative importance of manufacturing has been declining throughout the course of their history (see Chapter 10), the opposite trend is observed in the case of South Korean MNCs. Services was the second most important sector of South Korean FDI with a share of one-third of the stock of approved South Korean FDI in 1995, compared to its share of 24 per cent at the end of the 1980s and 57 per cent at the end of the 1970s. Finally, the primary sector was the least important sector of South Korean FDI with a share of 8.5 per cent of the stock of approved FDI in 1995, compared to its share of 43 per cent at the end of the 1980s and 26 per cent at the end of the 1970s. Thus, the 1990s marked the decade in which resource extractive FDI fell significantly in importance from being the most important type of South Korean FDI at the end of the 1970s and 1980s.

There had also been changes in the geographical destination of South Korean FDI as of 1995 with investments in developing countries taking the slightly larger share of the stock of approved South Korean FDI (51 per cent) compared to developed countries (48 per cent). This is in comparison to 1989 when developed countries had the clear lead as the dominant recipient of South Korean FDI in 1989 with a share of 54 per cent, while developing countries had a share of 46 per cent. However, although developing countries may have received slightly more of the stock of approved South Korean FDI by 1995 compared to developed countries, the share of developing countries was not as high as
that in 1979 at 72 per cent. Thus, there has been no strong evidence to suggest that the geographical pattern of South Korean FDI in the 1990s has shifted back to the pattern that prevailed at the end of 1970s, unlike in the case of Taiwan. Thus, although the share of developed countries in the stock of approved Taiwanese FDI at at the end of the 1980s at two-thirds was much higher compared to the share of developed countries in the stock of approved South Korean FDI in the same period at 55 per cent, such high share of developed countries in Taiwanese FDI had dropped significantly to 21 per cent in 1995, and so did the share of developed countries in South Korean FDI but not as dramatically to 48 per cent in 1995. This reflects the greater ability of South Korean MNCs compared to Taiwanese MNCs to sustain existing FDI in the developed countries, as well as to implement new FDI projects in those countries, despite the fact that South Korean MNCs in developed countries emerged and grew in a major way in the 1980s, a full decade behind the major assault of Taiwanese MNCs in the developed countries in the 1970s. The fact that South Korean FDI in developed countries have been led by the chaebols may explain the greater resilience of South Korean MNCs to sustain FDI in developed countries compared to the Taiwanese MNCs that invested in developed countries which, although featuring as the largest companies in Taiwan, are not as large and diversified as the South Korean chaebols.

South East Asia was the dominant host region of South Korean FDI in 1995, with a share of 45 per cent of the stock of approved South Korean FDI, followed by North America (31 per cent) and Europe (15 per cent). Thus, South East Asia increased considerably in relative importance in comparison to its 1989 share of 28 per cent, while the share of North America declined from its 1989 share of 41 per cent. Europe, on the other hand, emerged over the 1990s as an increasingly significant recipient of South Korean FDI whose share in the stock of approved FDI increased from 4 per cent in 1989 to 15 per cent in 1995.

Five main types of outward FDI undertaken by South Korean MNCs could be distinguished as of 1995 in order of declining importance: first, manufacturing FDI in developing countries to supply host country markets or as export platform; second, FDI to supply host country markets in developed countries and to gain access to advanced technologies; third, outward FDI in trading, warehousing and transportation in major foreign markets to promote growth of South Korean exports; fourth, FDI to secure supplies of essential raw materials to serve the South Korea-based industrial production complex; and fifth, outward FDI in civil construction and engineering-related works to facilitate growth of South Korean exports of services of skilled and semi-skilled labour. Thus, in comparison to the 1980s, resource extractive FDI declined considerably in importance as mentioned, and manufacturing FDI in developing countries superseded the previously greater importance of FDI in developed countries and FDI in trading, warehousing and transportation.

Since the first two main types have been the most important types of South Korean FDI in the 1990s and the pattern of such investments have changed considerably since the 1980s, the discussion below focuses on these two most important types of FDI.
Manufacturing FDI in developing countries to supply host country markets or as export platform

This type of FDI accounted for more than 37 per cent of the stock of approved South Korean FDI as of 1995, and was the most important FDI type in the 1990s. The important change in the pattern of South Korean manufacturing FDI in developing countries over the 1990s was in their market orientation. Thus, while in the 1980s the growth of South Korean manufacturing FDI in these countries was largely of the export platform type driven by the need to gain access to low-cost labour and overcome trade barriers in major export markets through the relocation of labour intensive industries or labour intensive processes of more capital intensive industries, in the 1990s the growth of manufacturing FDI in developing countries and particularly in South East Asia had been spurred by the objectives of Korean MNCs to cater to local, regional and world markets. The growth of import substituting FDI in South East Asia has been influenced by the high economic growth rates of the region as well as the emergence of trade protectionism in the region.

As a case in point, the rapid growth of FDI by the South Korean car producers (Daewoo Motor Co., Hyundai Motor Co. and Kia Motor Co.) in motor vehicle assembly in South East Asia in the 1990s had been a response to the policy of most countries in that region to restrain imports of foreign cars under administrative guidance. Asia is not only the dominant recipient of South Korean manufacturing FDI in developing countries, but also of South Korean manufacturing FDI worldwide with a share of 59 per cent of the stock of approved South Korean FDI in manufacturing in 1995.

The most prominent feature of South Korean manufacturing FDI in developing countries was the formation of integrated regional production networks by South Korean consumer electronics companies, of which the shining example is SEC. Throughout the 1990s, SEC has sought to build regional production networks in South East Asia and China associated not only with the final goods assembly but also the upstream production of parts, components and intermediate goods made possible by the growth of corresponding FDI of affiliated supplier companies in the 1990s and the establishment of rapid linkages between final goods assemblers and their affiliated parts and component manufacturing subsidiaries. Indeed, during the 1990s international production by SEC in Asia was associated with an expanding production of consumer electrical products (colour TVs, VCRs, microwave ovens, refrigerators) and more technologically sophisticated products such as telecommunications products and semiconductors as well as components such as colour picture tubes, computer display tubes, tuners, VCR motors, heads and drums (Kim, 1997). This is reminiscent of the growth of Japanese FDI in the electrical and electronics industry as well as the motor vehicle industry in North America, Europe and Asia in which regionally integrated production networks with a fairly sophisticated regional division of labour and decentralized control have been developed by Japanese MNCs (Kim, 1996; UNCTC, 1991).

In South East Asia, for example, the final goods assembly plants established by SEC in Thailand (TSE) in 1988 for the production of colour TVs, VCRs and washing machines and in Indonesia (SMI) in 1989 for the production of refrigerators have both been strengthened by the establishment by SEC of an intermediate products plant in Thailand.
(SEM-Thailand) in 1990 for the production of colour TV and VCR components. Over the 1990s, SEM-Thailand have not only provided intermediate products for TSE and SMI but also other affiliated final goods assembly plants established by SEC in Indonesia (SME) in 1991 for the production of VCRs and audio products, and in Malaysia (SEMA) in 1991 for the production of microwave ovens. Evidence of further backward vertical integration in South East Asia is found in the establishment by SEC of plant in Malaysia (SED-Malaysia) in 1991 for the production of parts such as colour picture tubes used by its intermediate goods supplier SEM-Thailand in the production of colour TV components. This plant also supplies directly the final goods assembly plant established by SEC in China (TTSEC) in 1995 for the production of colour TVs. Still further, another plant was established by SEC in Malaysia (SC-Malaysia) in 1992 for the production of more sophisticated components such as cathode ray tube glass bulbs used in the production of colour picture tubes by SED-Malaysia (Kim, 1996). A similar regionally integrated production network had been evolving in Tianjin, China for VCR production and in Jiangsu and Kwangdong, China for audio products over the course of the 1990s. SEC envisages the development of such fairly sophisticated regional division of labour to emerge in its other regional networks in Japan, Europe and America in the future (Kim, 1997).

However, despite the similarities in the development of regional production networks established by Japanese and South Korean MNCs in South East Asia and China, there are fundamental differences between the kind of regional production networks established by Japanese and South Korean MNCs apart from the greater sophistication and complexity of regional production networks of the former by comparison to the latter. Perhaps the most important of all is the fact that unlike the foreign affiliates of Japanese firms in both regions that have continually upgraded their product change capability through cross-functional linkages between design and development, production, marketing and service in China and South East Asia, the network of foreign affiliates of South Korea’s foreign affiliates (as exemplified by that of SEC) display much weaker linkages between production, marketing and design and development functions (Kim, 1997). This is because the latter two functions are still centralized functions controlled by the South Korean parent company.

The second major difference is that unlike in the case of Japanese parts and components producers whose businesses are very much dependent on Japanese final goods assemblers owing to their quasi-integrated subcontracting networks and long-term inter-firm trading arrangements, this has not been the case of the business relationship between parts and components producers and final goods assemblers in South Korea, except perhaps in the case of SC Malaysia. As a result, even the parts, components and intermediate products produced by affiliated suppliers of South Korean chaebols in South East Asia and China have not been for the exclusive use of South Korean final goods assemblers. In fact, a significant proportion is sold to rival Japanese final goods assemblers; and, in addition, South Korean firms producing components and intermediate products rely on Japanese parts suppliers such as NEG and Asahi to provide glass bulbs for the colour picture tube production of SED-Malaysia (Kim, 1996).

Thirdly, while South Korean chaebols such as SEC in their regionally integrated
production networks in South East Asia and China have somewhat progressed sufficiently beyond the simple globalization stage in which FDI comprises final assembly operations controlled closely by the parent companies in Korea with limited domestic value added in host countries, Japanese *keiretsus* have progressed much farther to global localization in their regionally integrated production networks in North America, Europe, South East Asia and China with much higher local content ratios achieved through local sourcing or local production of both final products and a fuller range of sophisticated parts and components (Morris, 1991).

**FDI in developed countries to supply local markets and to gain access to advanced technologies**

This type of FDI accounted for some 21 per cent of the stock of approved South Korean FDI as of 1995, and was the second most important FDI type. As mentioned, the most significant change in the 1990s was the decline in relative importance of North America whose share in the stock of approved South Korean FDI fell from 41 per cent in 1989 to 31 per cent in 1995. Europe, on the other hand, emerged over the 1990s as an increasingly significant recipient of South Korean FDI whose share increased from 4 per cent to 15 per cent over the same period. Based on the stock of approved FDI in 1995, South Korea had a larger FDI stake in Europe at more than $1.5 billion compared to Taiwan at less than $556 million.

As in the 1980s, South Korean FDI in the developed countries in the 1980s of the type described above had three important determinants. The first determinant was defensive manufacturing FDI to protect or retain existing export markets of South Korean goods by supplying host country markets in developed countries through international production in the face of protectionist trade barriers, primarily in the case of electrical and electronics products targeted to the United States and Europe. However, as will be noted below, the further expansion of South Korean FDI in Europe in particular also fulfils the pursuit of offensive strategies of South Korean MNCs to build a significant market presence in a Triad location and to benefit from being an insider in a large integrated market.

The second determinant of FDI of this type stems from South Korea’s interest to gain access to more sophisticated and advanced forms of manufacturing technology and marketing expertise to support rapid industrial development in South Korea, to build technological capacities of South Korean firms in new products, to increase their capacity to engage in backward vertical integration through the establishment of local supply chain networks in the developed countries as a means to enhance the competitiveness of their affiliate production in developed countries and thus meet higher local content requirements in those countries, as well as to engage in forward vertical integration through the establishment of marketing networks to sell South Korean products in these countries.

The third determinant of this type emerged from the need to establish new markets in the developed countries by the provision of services (such as banking and finance, construction, hotels, etc.) aimed at meeting local market demand. The discussion below
focuses on the first two determinants as described above since these were the principal influences in the growth and changing pattern of South Korean FDI in developed countries over the 1990s.

Import substituting FDI in the developed countries

As mentioned above, the importance of Europe as a host region of South Korean FDI grew significantly over the 1990s in both absolute and relative terms. The growth of South Korean FDI in that region in that decade was spurred by further incentives for defensive investments owing to protectionism as shown in part in the European Commission’s decision to suspend South Korea’s trade privileges under the Generalized System of Preferences between 1989 and 1992, and their graduation from the scheme in 1998. This resulted in the proliferation of quotas on South Korean exports to Europe of ‘sensitive’ products to include VCRs, microwave ovens, small screen TVs, videotapes, polyester film and yarns, oxamic and glutamic acids. It was also reflected in the anti-dumping duties that had been imposed against South Korean exports and which had continued unabated over the 1990s. Anti-dumping duties were imposed on car radios in 1992, synthetic polyester fibres, DRAM chips, monosodium glutamate and electronic weighting scales in 1993, electronic capacitors and microdisks in 1994, and large screen TVs and microwave ovens in 1995 (Randerson and Dent, 1996).

However, although the initial phase of the expansion of South Korean FDI in Europe starting in the late 1980s had been motivated mainly by defensive considerations in response to trade protectionism, the investments also enabled the South Korean chaebol to fulfil their offensive market penetration strategies over the long term in several ways: first, it enables the South Korean chaebol to develop a strategic position in another Triad location apart from the United States and thus compete effectively in globalized industries. Second, a presence in the Single European Market through FDI enables South Korean firms to benefit from the large integrated market of Europe. Third, FDI in Europe enables access to high levels of technological expertise and the possibility of gaining from the wider diffusion of technological exchanges associated with the Single European Market. A market presence is also facilitating the collection of marketing information to support the growth of South Korean exports to the continent. These objectives of South Korean MNCs to upgrade their technological and marketing capacities will be discussed in the next section.

Over the 1990s, SEC expanded the number of its foreign affiliates in Europe. This included the establishment of warehousing and sales facilities in Spain in 1990, Italy in 1991, Sweden in 1992, and in Portugal in 1993. In addition, the firm established production and service facilities for refrigerators in Slovakia in a joint venture with Caltex established in 1991, and in Portugal for memory chips in a joint venture with Texas Instruments in 1994. Thus, SEC had established six production facilities in Europe as of 1995: colour TVs have been produced in the United Kingdom since 1987 and in Hungary and Turkey since 1989, VCRs have been produced in Spain since 1989, refrigerators have been produced in Slovakia since 1991, and memory chips in Portugal since 1994. In addition to its six sales and warehousing facilities in France, Spain, Italy,
Sweden and Portugal and headquarters in Germany, the firm also has a small R&D centre in the United Kingdom which monitors local market developments in telecommunications systems, audio-visual systems and home appliances, thus serving to support more fundamental research taking place in South Korea. Furthermore, the firm acquired in 1994, through its sister company Samsung Corning, the TV glass bulb manufacturer FGT located in former East Germany as a means of transforming its European production operations from screwdriver plants into more highly localized manufacturing plants. As a result, SEC had built up a considerable market presence in Europe where 21 per cent of its total sales by 1994 was realized (van Hoesel, 1997).

LG Electronics similarly expanded its European presence in the 1990s though not as extensively as SEC. The firm established a production facility in Italy in 1990, warehousing, sales and service facilities in France in 1990 and in Hungary in 1992, as well as a design facility (LG Design Technology) in Ireland in 1992 where products are designed to tailor to European lifestyles and local consumers. Thus, LG Electronics had established three manufacturing facilities in Europe as of 1995 located in Germany (established in 1986), the United Kingdom (1988) and Italy (1990), four sales subsidiaries and a research centre. In contrast to SEC, the firm had not yet taken concrete measures to expedite backward vertical integration to increase the local value added of its assembly production subsidiaries. Nevertheless, the firm realized some 19 per cent of its total sales in Europe in 1994 compared to SEC’s 21 per cent (van Hoesel, 1997).

Typical of firms from countries that are late industrializers, the South Korean chaebols have strong production capacities whose competitiveness derive from low production costs and a product specialization in the low end of the consumer electronics market where there is no direct competition with established MNCs (Bloom, 1992; Hobday, 1995). Such product specialization can be explained by their weak technological capacities in product design and development as well as weak marketing capabilities. South Korean products suffer from poor brand recognition in Europe, a manifestation of the large dependence of South Korean consumer electrical and electronics companies on original equipment manufacturing (OEM) contracts in which products are sold under the labels and brands of their OEM buyers. These factors help to explain the closure of the car manufacturing plant of Hyundai Motor Co. in Canada in 1993 (Kim, 1996), among other examples of failed or low-profitability FDI projects of South Korean firms in the developed countries.

*FDI in developed countries to gain access to advanced technologies and marketing expertise*

Owing to their weak technological capacities in product design and development, FDI of this type by the chaebols became even more important over the 1990s. Acquiring a more independent technological capability was an explicit element of the segyehwa policy between 1993 and 1997 in which overseas FDI was regarded as a bridge over which domestic industries can access the necessary advanced technologies generated abroad through selected mergers, acquisitions and joint ventures with incumbent firms in the Triad. Indeed, the large burden of technological dependence on foreign companies has
placed *chaebols* as agents of domestic industrial transformation at a disadvantage given that certain foreign technologies have been increasingly difficult to obtain, particularly from Japan since South Korean firms have become manifest rivals in the same industries in major regional markets (Ursacki and Vertinsky, 1994).

As in the 1980s, the main route in which South Korean MNCs have fulfilled this objective is through acquisitions of foreign firms in the Triad. SEC has been at the forefront of acquiring foreign firms mainly in the United States that have the most advanced technologies in research, production and/or marketing of semiconductors, consumer electronics, telecommunications and computers. In addition, SEC’s interest in acquiring Fokker (the Dutch aerospace group) and Rollei (the German camera maker), and Daewoo’s interest in Lotus (sports car manufacturers), their 65 per cent stake in Steyr-Daimler-Puch (producers of advanced engines) and their acquisition of FSO and Rodae (cars) also illustrate the objective of South Korean companies to augment their technological expertise and achieve rapid market presence through the acquisition of foreign firms in Europe (Randerson and Dent, 1996). But apart from outright acquisitions, outward FDI in developed countries are enabling South Korean MNCs to gain access to high levels of technological expertise and widens the possibility of gaining from the wider diffusion of technological exchanges. For example, the European Commission’s role in the development of new technologies and the existence of long-term development programmes like ESPRIT (European Strategic Programme for Information Technology) have provided an incentive for the South Korean companies to either conclude joint ventures with European firms or acquire European firms. In addition, the market presence of South Korean MNCs in Europe is facilitating access to the technological and logistical capabilities of European small- and medium-sized firms, particularly those in the car components industry which comprises some of the world’s most advanced suppliers. The access and exposure to developments at the forefronts or close to the forefronts of technological developments through various modes is serving to enhance the establishment of the *chaebol’s* local supply chains in Europe, thus enabling these firms to respond favourably to the higher local content requirements of the EU while helping to improve the competitiveness of their foreign plants in Europe (Randerson and Dent, 1996).

In addition, a related objective of their FDI in Europe has been to overcome the weak marketing capacities of South Korean MNCs through the collection of marketing information to support the growth of South Korean exports to the continent. Examples of these include, as mentioned above, the design centres in the United Kingdom and Ireland established by SEC and LG Electronics to monitor local market developments in consumer electronics and telecommunications in Europe. In the food industry, the ‘Euro-lab’ was established in Frankfurt by South Korean firms where, among other objectives, food habits in Europe are being investigated as a means to adapt existing food products or develop new ones for the European market (Randerson and Dent, 1996).
Conclusion

This chapter analysed the determinants of the emergence of South Korean FDI over the last 40 years. The major types of FDI undertaken by South Korean MNCs, the determinants of outward FDI, and their industrial and geographical patterns vacillated in the period until the 1970s, 1980s and 1990s. Thus, while outward FDI to secure supplies of essential raw materials to serve the South Korea-based industrial production complex, outward FDI in trading, banking, warehousing, transportation and distribution in major foreign markets, and manufacturing FDI in developing countries to supply host country markets or as export platforms were the predominant types of South Korean FDI from the period of their emergence in the late 1950s to the end of the 1970s, outward FDI to secure supplies of essential raw materials, outward FDI to supply host country markets in developed countries and to gain access to advanced technologies, as well as outward FDI in trading, warehousing and transportation in major foreign markets were the predominant types of South Korean FDI at the end of the 1980s. At the end of the 1990s, manufacturing FDI in developing countries to supply host country markets or as export platform, outward FDI to supply host country markets in developed countries and to gain access to advanced technologies, and outward FDI in trading, warehousing and transportation in major foreign markets predominated, thus representing a partial return to a concentration of outward FDI in developing countries consistent with the pattern of Korean FDI pertinent until the end of the 1970s.

To the extent that South Korean FDI could be compared with the pattern of Japanese FDI since the Second World War, the first and second phases of Japanese FDI in labour intensive manufacturing in textiles, sundries and other low wage goods (the first phase) and in heavy and chemical industries during the Ricardo-Hicksian trap stage of Japanese FDI (the second phase) had been transposed in the case of the history of South Korean MNCs and, as shown in the last chapter, Taiwanese MNCs. This is associated with a prolonged dependency or sustained comparative advantage of the South Korean economy on labour intensive production until the late 1980s. The basis of the prolonged competitiveness of these industries derived from the South Korean state’s policy of wage suppression and the political subordination of popular sectors (i.e. middle stratum of professionals, skilled workers, businessmen and farmers) to the state (Shin and Lee, 1995) which was brought to an end with political democratization in both South Korea and Taiwan from around 1987. The emphasis on the domestic industrial development of heavy and chemical industries in South Korea in the 1970s and 1980s led to the dominant role of outward FDI in natural resource extraction in South Korean FDI in those decades.

South Korea has reached the third phase of Japanese FDI of assembly-based, subcontracting-dependent, mass production in foreign markets in the same set of consumer durables industries—cars, consumer electronics and semiconductors—that have been at the core of the chaebol’s global strategies in the 1980s and 1990s. However, the wider range of more technologically advanced consumer durable goods produced by Japanese keiretsus in their international production networks worldwide from around the
mid-1970s onwards contrasted with the much narrower product range, less technologically advanced and lower brand recognition of South Korean products produced in foreign markets by the chaebols in the 1980s and 1990s. Indeed, the technological strengths combined with advanced marketing capabilities achieved through product differentiation, well-known brand names and extensive distribution channels by Japanese MNCs in the electrical equipment and motor vehicles industries meant that it had been in those industries in which their involvement and market shares in United States and Europe have been expanding fastest both through exports and international production (Dunning and Cantwell, 1991). By contrast, the far weaker product change and product design capabilities as well as relatively weak marketing capabilities of South Korean MNCs—a feature inherent in firms from countries that are late industrializers as well as the long history of South Korean firms as OEM suppliers in the electrical equipment industry—have constrained their ability to capture substantial market shares for their brand products in the developed countries, particularly in the larger European countries as Germany and France (van Hoesel, 1997).

Moreover, the regional production networks of South Korean chaebols which has progressed the fastest in South East Asia and China in the 1990s differ from the regional production networks of Japanese keiretsus in North America, Europe, South East Asia and China not only in the greater sophistication and complexity of regional production networks of Japanese MNCs by comparison to those of South Korean MNCs which has enabled Japanese MNCs to progress towards global localization to a much farther extent than South Korean MNCs. The high product change capabilities of Japanese firms attained through cross-functional linkages between design and development, production, marketing and service in the regionally integrated production networks of Japanese MNCs worldwide with fairly sophisticated regional division of labour and decentralized control contrast with the much weaker linkages between production, marketing and design and development functions in the regional production networks of the Korean chaebols such as SEC owing to continuing centralization of control from parent companies in Korea for the higher value added functions. Another major difference arises from the unique pyramidal and multi-layered system of subcontracting relationships between Japanese final goods assemblers and their suppliers which has essentially been closed to external economic actors unlike those of the relationships between affiliated suppliers and final goods assemblers of the Korean chaebols which has sold components to Japanese final goods assemblers and bought parts from Japanese parts suppliers.

At the end of the 1990s Korean MNCs have not reached the fourth phase of Japanese multinationalization—the mechatronics-based, flexible manufacturing of highly differentiated goods involving the application of the most advanced computer technologies in design, manufacturing and engineering along with the use of more advanced technological breakthroughs associated with high-definition TV, new materials, fine chemicals and more advanced micro-chips, etc.—and their capabilities of reaching this stage will be defined by significant progress yet to be made with the development of more advanced product innovation as well as marketing capabilities.

Thus, the dynamic analysis of the growth of Korean FDI suggests some similarities in the evolutionary course of Japanese FDI and Taiwanese FDI. However, the evolution of
South Korean FDI over time is slower compared to that of Japanese FDI. Japanese MNCs seem to have graduated from the first two phases to the third phase within a span of about 15 years or so years (1950 to the late 1960s), while Korean MNEs have taken around 30 years (1960s to the late 1980s). Therefore, despite the similarity in the patterns of their outward FDI, the pace of evolution in the pattern of outward FDI and the character of that evolution has differed considerably between the two countries.

Notes

1 The data in this paragraph were sourced from Tolentino (1993) for 1960, and UNCTAD (1999) for 1980 and 1998.

2 In order to induce private entrepreneurs to initiate investments in manufacturing, the South Korean government implemented import-restrictive and industry-protective policy measures including import prohibitions, quotas, differential tariff rates, overvalued domestic currency, foreign exchange controls, and a multiple exchange rate system. It also extended low interest loans and low grain prices and introduced other forms of relative price distortions. Such a variety of policy measures for industrial protection guaranteed high profit margins by raising the domestic prices of industrial consumer goods while minimizing the domestic costs of production through the low costs of equipment and raw materials imports and the low real wage rates of unskilled workers (Jo, 1981).

3 The liberalization measures imposed between late 1964 and 1965 including the devaluation of the domestic currency, interest-rate reforms, partial lessening of import restrictions and dismantling of other controls (Jo, 1981) were completely at odds with those measures imposed under the import substitution policy.

4 The Foreign Exchange Control Regulations of South Korea in its original version defined outward foreign investment to include exports on deferred payment base (over one year), loans to non-residents or foreign nationals, provision of technical services the royalty period of which exceeds one year, purchase of stocks issued in foreign countries and the purchase of real estate in foreign countries. The eligible countries were limited to those having diplomatic relations with South Korea and the projects were limited to those generating foreign exchange for South Korea either through import substitution or exports, and to those contributing to long-term stable supplies of essential raw materials. (In 1978, such list of encouraged overseas investment projects was expanded to include those to secure offshore fishing bases; and those investments facilitating relocation abroad due to eroding domestic competitiveness.) Individual projects had to be approved by the Ministry of Finance which had jurisdiction for foreign exchange management in South Korea (delegated to the Bank of Korea in 1975) (Koo, 1984).

5 Unless otherwise indicated, the data on South Korean FDI refer to the approved value of outward FDI as provided by the Bank of Korea. The stock of approved South Korean FDI represent cumulative flows of approved outward FDI since 1968. Outward FDI as defined by the Bank of Korea includes indirect investment and
comprises the following: (1) the purchase of 20 per cent or more of a firm’s securities issued abroad; (2) long-term loans; (3) real estate investment; (4) investment in foreign natural resources or in high-technology development projects; and (5) investment in private enterprises in foreign countries. These caveats should not affect the time-series analysis of the broad trends in the industrial and geographical patterns of South Korean FDI.

8 There were only 18 less than majority owned trading subsidiaries of a total number of 194 subsidiaries of this type in 1982 (Koo, 1984).
9 Establishment of export-facilitating subsidiaries abroad allowed parent companies to export to the host country even without a clear commitment by host country buyers as inventories could be kept by the subsidiaries until actual sales were made (Koo, 1984).
10 Based on data contained in Kumar and Kim (1984).
11 The extent to which the investment decisions by South Korean firms was influenced by actual and potential tariffs in foreign markets had not been investigated by Jo (1981). However, in the late 1960s, tariff barriers were imposed by many South East Asian countries that pursued import substitution industrialization (UN, ESCAP, 1988). Since South East Asia was an important export market for South Korea, then it is likely that trade barriers also determined international production by South Korea in South East Asia.
12 Based on various issues of the IMF, *Direction of Trade Statistics Yearbook*, merchandise exports of South Korea grew by an annual average rate of 36.5 per cent in the 1970s, and although this slowed down to 6.3 per cent in the period between 1981 and 1985, it grew by more than 30 per cent in the second half of the 1980s. The balance of trade of South Korea was in surplus by $4.6 billion in 1986, and grew further to $9.8 billion in 1987 and $14.3 billion in 1988 (Jun, 1990). Thus, by comparison to the annual average net exports of goods and services of -231 billion won in 1968 and 1969 which further worsened to -589.6 billion won between 1970 and 1979, the annual average net exports of goods and services increased significantly to 2,322.1 billion won between 1980 and 1989 before declining dramatically to -3,987.9 billion won between 1990 and 1997. The annual average foreign exchange reserves nevertheless increased from $468.6 million between 1968 and 1969, $1.4 billion between 1970 and 1979, $5 billion between 1980 and 1989 and $21.7 billion between 1990 and 1997. Based on data contained in the International Monetary Fund, *International Financial Statistics Yearbook 1998*, Washington, DC: IMF.
13 On attempts by the United States to demand that Taiwan and South Korea allow their currencies to rise, see ‘Investment by Taiwan: The embarrassment of riches’, *The Economist*, 25 March 1989; and Kwag (1987).
14 However, the annual average exchange rate of the won to the United States dollar had been on a long-term decline from an annual average exchange rate of 282.4 won

15 Political liberalism tolerated a rash of strikes—almost illegal—by workers demanding higher bonuses. See ‘Investment by Taiwan: The embarrassment of riches’, *The Economist*, 25 March 1989. As a result, wages in the industrial sector in Taiwan in the three years from 1988 to 1990 increased by 10.9 per cent in 1988, 14.6 per cent in 1989 and 13.5 per cent in 1990. In South Korea, the corresponding figures were 19.6 per cent, 25.1 per cent and 20.2 per cent, respectively (van Hoesel, 1997). This in turn led to declining rates of South Korean export growth from 24.8 per cent in 1988, 2.8 per cent in 1989, 4.2 per cent in 1990, 10.5 per cent in 1991 and 6.8 per cent in 1992 (Shin and Lee, 1995).

16 The first step in the liberalization of outward FDI policy in South Korea was implemented in December 1986 and was manifested in the following forms. While previously all overseas investment projects had been subject to case-by-case approval, investment projects amounting to less than 1200,000 did not require approval as of December 1986. Such amount was increased to $500,000 in September 1987, $1 million in December 1987 and to 12 million in November 1988. Apart from a continuing trend towards liberalization of foreign exchange regulations, the South Korean government also sought to eliminate cumbersome restrictive measures in its many facets by liberalizing investor’s qualification requirements, allowing investments to be made in foreign countries that did not have diplomatic relations with South Korea, eliminating the restricted or recommended categories of eligible overseas investment projects, excluding technical services or deferred export as outward investment, and simplifying approval procedures. The prevailing system of investment incentives for approved overseas investment projects including access to overseas investment funds in the Korean Eximbank and other financial incentives, tax exemptions and provision of information on overseas investments to South Korean investors was also strengthened since 1986 (Kim, 1990; Koo, 1984). To support small- and medium-sized firms in labour intensive industries to restructure their industries towards high value added, technology intensive industries and to encourage the transfer of labour intensive industries or production lines to developing countries with cheap labour, the South Korean government provided both restructuring and investment funds, as well as access to its Economic Development Cooperation Fund for equity investment ventures in developing countries. The government also planned at the end of the 1980s to create an industrial complex in South East Asia to facilitate the transfer of labour intensive production of South Korean manufacturing firms and thus avail of cheap labour and circumvent trade restrictions. Furthermore, apart from the roles of the Bank of Korea, the Korean Trade Promotion Corporation (KOTRA), and the Small and Medium Industries Promotion Corporation in providing foreign investment information services, the Overseas Investment Service Centre was inaugurated in the
first half of 1988 to provide a package of services in consulting, investment approval, investment financing and investment insurance for domestic businesses and entrepreneurs who plan outward FDI (Korea Institute for Foreign Investment, 1989). The *segyehwa* movement between 1993 and 1997 embodied the government recognition of the need for greater integration in the world economy through the encouragement of outward FDI and the introduction of economic liberalization, including the opening up of the Korean economy to greater foreign competition. The movement involved the implementation of reforms in three major areas: first, political and social reforms to conform to a freer and more mature democratic society; second, economic renewal and the strengthening of economic competitiveness; and third, cultural development. The main tools of the movement were increased deregulation of enterprises, enhanced market liberalization, reduced reliance by the government as an economic partner, greater support for small- and medium-sized firms, and the pursuit of a more equitable partnership between management and labour (Ungson et al., 1997).

17 Based on UNCTAD (1999), the estimated stock of actual FDI of South Korea increased by almost five times between 1985 and 1990 from $461 million to $2.3 billion.

18 Jeon (1992) found no evidence to support the notion that South Korean FDI in manufacturing in the developed countries reflected a defensive motive by oligopolistic firms in South Korea to maintain foreign market shares.

19 The state firms Korea Petroleum Development Corporation and KODECO formed a consortium to develop oilfields in North Yemen and East Madura, Indonesia. In addition, Korea Electric Co., another public sector company, also participated in the resource development of uranium in the United States and Canada (Korea Institute for Foreign Investment, 1989).

20 This was the case, for example, in the mining investment project organized as a joint venture in Alaska to explore oil and coal initiated by several South Korean trading companies. While the South Korean firms provided the financing for exploration in the form of loans, their American counterparts provided exploration rights and sites for the development of the resource at a later stage, if necessary (Koo, 1984).

21 It is sometimes argued that, unlike South Korea, Taiwan was able to avoid much of the trade retaliation brought about by the increasing trade pressures owing to the small size of its firms which provided a degree of anonymity, and the important role of many Taiwanese companies as original equipment manufacturers (OEM) whose fate was linked inextricably to that of domestic producers in the developed countries. This made trade retaliation by developed countries a process of self-inflicting pain (Wang and Hsu, 1992).

22 It is important to take note that although the great majority of South Korean manufacturing FDI in developed countries was geared to cater to local market demand in those countries, in exceptional cases South Korean manufacturing FDI in those countries served as an export platform type of FDI. This was the case, for example, with a South Korean manufacturing project in Portugal in which the
subsidiary was used as an export base in Europe (Koo, 1984).

23 This is owing to the allegation by the United States of adverse trading practices exercised by Taiwan and South Korea. Thus, although Taiwan and South Korea have relatively free access to the United States market, these countries were accused of restricting the imports of American goods and services in their countries through import tariffs and non-tariff barriers such as licensing regulations, technical standards, export subsidies and restricted access to foreign participation in the banking, insurance and securities industries. The United States particularly feared that South Korea with the largest industrial capacity of the four Asian newly industrialized countries had the capability to become another economic power like Japan (Chia, 1989).

24 However, unlike in the case of Korea, the Japanese government was not a provider of finance to the keiretsus who have their own banks as part of their large organizations. By comparison, the relationship between government and business in Korea is such that the government sets the policies and traditionally controlled the chaebols’ access to capital. The chaebols were not allowed to own banks until the 1990s (Ungson et al., 1997).

25 LG Electronics established a colour TV plant in a suburb of Huntsville, Alabama, in 1982. Threatened by LG Electronics’ strategic move, SEC similarly established a few months later its first FDI in a pilot plant in Portugal organized in the form of a joint venture with Portuguese and British partners as a means of gaining international production experience. In 1984, SEC then established a colour TV manufacturing plant in Rousbery, New Jersey, in 1984 with an investment of $25 million (Korea Institute for Foreign Investment, 1989; Kim, 1996). This illustrates that South Korean MNCs emerging from domestic oligopolistic industries also exhibit similar patterns of oligopolistic behaviour such as ‘follow my leader’ so clearly observed in MNCs of the developed countries (see Knickerbocker, 1973).

26 Supported by initial generous tax relief and low selling price, Hyundai Motor Company’s subcompact car, Pony, became the best-selling foreign car in Canada within two years of its 1984 introduction. However, a 36 per cent average anti-dumping duty was imposed on Hyundai car exports to Canada in 1987 in response to a ruling by Canada’s federal tax department of dumping practices by the Hyundai Motor Company. See ‘Hyundai reined in: South Korean carmaker penalised for dumping in Canada’, Far Eastern Economic Review, 17 December 1987.

27 In the case of colour TVs, production cost in the United States was calculated to be about 7 per cent higher than the pre-trade barrier export cost. In the case of microwave ovens, local production in Europe costs 4 to 6 per cent more than the pre-trade barrier export cost. Such cost differentials are significant in view of the low profit margin of the export business of South Korean firms (normally less than 3 per cent of sales) (Jun, 1990).

28 The establishment by SEC of a production plant for colour TVs in Portugal in 1982 although no longer in operation was the first production facility established by the company outside South Korea. The company also set up headquarters and a warehousing facility in Germany in the same year, a sales office in the United
Kingdom in 1984, production and service facilities in the United Kingdom in 1987 to produce colour TVs, a warehousing and sales facility in France in 1988, and production and service facilities in Spain (1990) and Turkey (1989) to produce VCRs and colour TVs, respectively. As with SEC, LG Electronics similarly established headquarters in Germany in 1980 where it also has warehousing, sales and service facilities. It also established a production facility in that country in 1986 to produce colour TVs and VCRs, warehousing, sales and service facilities in the United Kingdom in 1987 as well as a production facility since 1988 to produce microwave ovens and colour TVs (van Hoesel, 1997). Daewoo Electronics had established a production plant for microwave ovens in Longwy, France, with an annual production capacity of 300,000. Since 1985, Daewoo had been supplying microwave ovens to its joint venture partner JCB which accounted for some 12 per cent of the French market for microwave ovens in the late 1980s (Korea Institute for Foreign Investment, 1989).

29 It is important to take note that some of the export platform manufacturing FDI by South Korean firms in developing countries are also serving the needs of domestic markets of their host countries. The data, however, does not allow the disaggregation of the market orientation of South Korean manufacturing FDI according to export markets and local markets in host countries.

30 Indeed, Indonesia was a highly favoured location for export platform FDI by South Korean firms owing not only to its low wage levels but also due to the state’s authoritarian control of the labour force. Indeed, Indonesia was the second-largest host country of Korean FDI in the late 1980s and early 1990s after the United States (Shin and Lee, 1995).


32 The relationships between the government and business sectors in Japan is different. In particular, the Japanese *keiretsus* have their own banks as part of their organizational structure which provides the member companies with a reliable source of credit and finance, including in the facilitation of outward FDI. By contrast, the South Korean *chaebols* have not been allowed to own banks until the mid-1990s (Ungson *et al.*, 1997).

33 As shown in Chapter 10, some 79 per cent of the stock of approved Taiwanese FDI in 1995 was in developing countries and 21 per cent was in the developed countries.


35 Indeed, it is sometimes the case that the chaebol sources parts, components and intermediate products from independent suppliers because the cost of supplies from their affiliated suppliers was much higher (Kim, 1996).

36 SEC acquired the following foreign companies between 1993 and 1995. The first was the 20 per cent acquisition of Array Company in the United States in 1993 to establish cooperative arrangements in digital process chip technology used in multimedia products. The second acquisition in the same year and in the same
country was Harris Microwave Semiconductor, one of the world’s leading makers of optical semiconductors with a specialization in gallium arsenide chips. The third acquisition was 51 per cent of the Japanese company, LUX, a producer of hi-fi audio equipment, in 1994. The objective of the acquisition was to concentrate development and sales in LUX and manufacturing and sales in SEC. The fourth acquisition was 51 per cent of the American company, Control Automation Inc., a CAD/CAM software technology company, in 1994. The fifth acquisition was 15.1 per cent of the Chilean company, ENTEL, the largest operator of telecommunications systems, in 1994. The sixth acquisition was the American company, Integrated Telecom Technology, that specializes in ATN technology, in 1994. The seventh acquisition in 1995 was 4 per cent of the shares of the American company, Integral, that specializes in HDD technology, for the purpose of joint development of HDD products. The eighth acquisition was 40.25 per cent share of another American company, AST Research, a computer company. The purpose of the acquisition is to establish a broad range of commercial relationships including supply and pricing of critical components, joint product development, cross-OEM arrangements and cross-licensing of patent (Kim, 1996).

37 The acquisition of FSO and Rodae has enabled Daewoo to have a rapid means of establishing car production in Europe to advance the company’s ambition to be one of the top car producers by 2005 (Randerson and Dent, 1996).
Conclusion
The emergence and evolution of multinational corporations from resource-scarce large countries

The general conclusion that can be drawn from the analyses in this part of the book is that there is a common pattern in the emergence of MNCs from the five resource-scarce large countries (United Kingdom, Germany, Japan, Taiwan and South Korea) that despite their inherent natural resource scarcity based their domestic industrial development on resource-intensive production. Multinational corporations based in these countries share a common origin in the following types of outward FDI: resource-extractive FDI to secure natural resources to support domestic industrial expansion and meet domestic consumer needs, manufacturing FDI and, given the common importance of trade as an engine of growth in the national economies of the five countries analysed, FDI in trading, distribution, marketing and after-sales services (see Table 12.1). Despite the close similarity in the types of FDI in which MNCs from the five resource-scarce large countries emerged, there were important differences with respect to the types of firms that undertook the initial FDI across the different FDI types, the actual development paths of outward FDI as it related to local industrialization in each country (Table 12.2) and the form of technological accumulation of leading national firms in relation to the natural course of outward FDI in each country (Table 12.3). This chapter seeks to reflect on the similarities and differences in the emergence and evolution of MNCs from the resource-scarce large countries.

The emergence of multinational corporations

Resource-extractive FDI
Outward FDI in resource-based activities in the agriculture, forestry, fishery and oil sectors were stimulated by the demand of domestic processing industries and consumers for primary products. Because of their resource scarcity, these vital inputs to domestic industrial production or consumer requirements either do not exist in the home country or are available in inadequate amounts to support industrialization or meet consumer requirements. The shortage of natural resources in the large economies of the United Kingdom, Germany, Japan, South Korea and Taiwan provided the need
Table 12.1 Resource-scarce large countries: variations in the early stages of outward direct investment across different countries

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>Resource-based extraction and processing in agriculture, minerals and petroleum to support domestic industrial expansion and meet domestic consumer needs</td>
<td>Free-standing firms</td>
</tr>
<tr>
<td></td>
<td>Complementary service investments to resource-based investments (finance, insurance, trading, transportation and distribution)</td>
<td>Resource-based firms, firms in manufacturing, petroleum and trading, engaging in backward vertical integration Banks</td>
</tr>
<tr>
<td></td>
<td>Agriculturally based investments based on entrepreneurial perceptions of profitable investment opportunities Investments in trading</td>
<td>Banks Insurance companies Trading companies Transportation companies (shipping and railroads)</td>
</tr>
<tr>
<td></td>
<td>Investments in transportation (railroads, shipping, etc.)</td>
<td>Railroad companies Shipping companies Free-standing companies</td>
</tr>
<tr>
<td></td>
<td>Investments in banking and insurance</td>
<td>International and imperial banks, some of which began as free-standing companies Insurance companies</td>
</tr>
<tr>
<td></td>
<td>FDI in manufacturing in branded consumer goods industries mainly and some producer goods industries (industrial machinery, chemicals, oil, armaments and</td>
<td>Free-standing companies Manufacturing companies</td>
</tr>
<tr>
<td>Examples of countries</td>
<td>Dominant form of earliest outward FDI</td>
<td>Type of locally based MNC</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Germany</td>
<td>FDI in banking to support the expansion of German business abroad</td>
<td>Banks</td>
</tr>
<tr>
<td></td>
<td>FDI in local market-oriented manufacturing industries of the Second Industrial Revolution (chemicals, pharmaceuticals, machinery, electro-technical products and motor vehicles)</td>
<td>Manufacturing companies, large sized with high technological intensity</td>
</tr>
<tr>
<td></td>
<td>FDI in local market-oriented manufacturing in processing industries (iron and steel, textiles, branded consumer goods)</td>
<td>Manufacturing companies, relatively smaller and more moderate sized</td>
</tr>
<tr>
<td>Japan</td>
<td>Trading investments in major export markets to promote the growth of Japanese exports. This was supported by the development of auxiliary businesses in banking, insurance and transportation (shipping and railroads)</td>
<td>Banks</td>
</tr>
<tr>
<td></td>
<td>Banking investments to gain access to international capital markets and to promote the growth of Japanese exports and FDI</td>
<td>Marine insurance firms</td>
</tr>
<tr>
<td></td>
<td>Investments in small- to medium-scale labour intensive manufacturing (e.g. cotton textiles and food processing) in the face of</td>
<td>Shipping companies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Railroad companies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Banks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manufacturing companies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trading companies</td>
</tr>
</tbody>
</table>
rising domestic production costs
Resource-related extraction and processing investments in agriculture, mining and petroleum and complementary services (banks, railroads) to support domestic industrial expansion and meet consumer needs

Taiwan
FDI in natural resource intensive manufacturing (pulp and paper, cement, rubber, food and drink) and in heavy (cable and wire, etc.) and chemical industries

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export-oriented FDI in trading, sales, distribution, marketing and services to facilitate the growth of manufactured exports of Taiwan</td>
<td>Large exporting manufacturing companies, forwardly integrating</td>
<td></td>
</tr>
<tr>
<td>FDI in shipping to facilitate the exports and imports of Taiwan</td>
<td>Shipping companies</td>
<td></td>
</tr>
<tr>
<td>Banking investments to gain access to international capital markets and to promote the growth of Taiwanese exports and FDI</td>
<td>Banks</td>
<td></td>
</tr>
<tr>
<td>Resource-based extraction in agriculture, forestry and fishery industries</td>
<td>Manufacturing companies, engaged in backward vertical integration</td>
<td></td>
</tr>
<tr>
<td>South Korea Resource-based extractive investments in agriculture, forestry, fisheries and mining to support domestic industrial based firms expansion and meet domestic consumer needs</td>
<td>Large manufacturing companies, backwardly integrating Resource-based firms</td>
<td></td>
</tr>
<tr>
<td>FDI in trading, warehousing and transportation in major foreign markets to promote the growth of South Korean</td>
<td>Manufacturing companies, forwardly integrating. General trading companies as</td>
<td></td>
</tr>
</tbody>
</table>
exports trading arms of the large conglomerates (chaebols)

Banking investments to gain access to international capital markets and to promote the growth of South Korean exports

Manufacturing FDI in non-metallic mineral products, food, drink and tobacco, paper products and basic metal products to supply host country markets or as export platform

FDI in civil construction and engineering to promote export of skilled and semiskilled labour

Banks

Manufacturing companies

General trading companies

Manufacturing companies

Construction companies

Engineering companies

Source: Author’s compilation based on the analysis contained in the country chapters.

Table 12.2 Resource-scarce large countries: actual development paths for outward direct investment, and their association with local industrialization across different countries

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>International production by British manufacturers remained oriented towards the mature, relatively low-technology sectors whose competitiveness emanated from the high income and large British market: large size, established technological strengths, product differentiation, quality, and marketing and managerial skills and experience. These characteristics favoured the continuing pre-eminent role of consumer goods firms as the new British MNCs during the inter-war years and post-Second World War period</td>
<td>Manufacturing firms in consumer goods industries, serving local markets</td>
</tr>
</tbody>
</table>
prevented industrial restructuring towards the growth-oriented, higher technology intensive industries, including investments in innovation that would sustain those industries

The development of the services sector in the domestic economy and associated growth of exports and outward FDI in services in the 1990s

Germany

The defeat of Germany in the two world wars and the sequestration of foreign assets led to comparatively little international production until two decades after the end of the Second World War. The loss of some of the most modern parts of its industrial base as well as natural resources and the confiscation of German patents and foreign assets after the two world wars created strong pressures to upgrade German industry in advanced, knowledge-based industries and to foster technological innovation in indigenous firms. However, domestic embeddedness of German manufacturing firms, remain, as manifested in their

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany (continued)</td>
<td>continued preference for exporting over FDI as an internationalization strategy, and in the continuing concentration of their outward FDI in Western Europe</td>
<td>Services firms (finance, business services, etc.)</td>
</tr>
<tr>
<td></td>
<td>The development of the services sector in the domestic economy and associated growth of exports and outward FDI in services in the 1990s</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Weakening of the traditional labour intensive manufacturing industries owing to a continuous cycle of</td>
<td>Small and medium-sized manufacturing</td>
</tr>
</tbody>
</table>
enhanced labour productivity and rising wages and strengthening of the Japanese yen.

Scale economies-based modernization of heavy and chemical industries in the late 1950s to the early 1970s which prompted outward FDI to overcome the Ricardo-Hickson trap of industrialization due to natural resource scarcity, the shortage of industrial space and environmental problems.

Industrial upgrading in more complex manufacturing companies based on the mass production of assembly-based consumer durables, supported by a network of subcontractors. International production prompted by protectionism and recycling of trade surplus in the United States in the 1970s and by the threat of a fortress Europe in the 1980s.

Industrial upgrading in even more complex manufacturing of highly differentiated goods, involving the application of computer-aided designing, computer-aided engineering and computer-aided manufacturing in the 1980s, and associated international production. International production prompted both by protectionism and oligopolistic competition between firms in international industries.

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taiwan</td>
<td>Domestic industrial upgrading in heavy industry</td>
<td>Large conglomerate</td>
</tr>
<tr>
<td></td>
<td>The development of the services sector in the domestic economy and associated growth of exports and outward FDI in services in the 1990s</td>
<td>Services firms (finance, property, trading, general)</td>
</tr>
</tbody>
</table>
and chemical-based industries (plastic and plastic materials, synthetic fibres, etc.) International production in the 1970s motivated by the need to seek new markets abroad, secure access to export markets in the midst of rising international protectionism, secure raw materials supplies and maintain access to cheaper energy and land costs, and overcome domestic environmental problems

Further advancement in electrical and electronics production and chemicals production in the domestic economy fostered by industrialization policy. Led to further growth of exports and international production in these industries primarily in the United States in the 1970s and 1980s and in Europe in 1980s and 1990s prompted by the strengthening of the New Taiwan dollar, the avoidance of trade barriers and the recycling of trade surpluses and the need to gain access to advanced foreign technologies and marketing expertise

Rapid export growth accompanied by the rise of wages faster than productivity medium-sized growth, appreciating New Taiwan dollar manufacturing combined with the avoidance of trade barriers spurred the emergence in the late 1980s of export-oriented international production in labour intensive production of textiles, clothing and other labour intensive goods, including electronic and electrical products in the developing countries of Asia and the Caribbean

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Korea</td>
<td>Industrial upgrading in domestic metals production precipitated the growth of outward FDI in minerals</td>
<td>Manufacturing firms Mining companies</td>
</tr>
</tbody>
</table>
extraction between 1978 and 1982
prompted by the strengthening resource
nationalism in many mineral-rich
countries and concerns about the
stability and security of mineral
supplies
Rapid export growth accompanied by
the rise of wages faster than
productivity growth, appreciating South
Korean won combined with the
avoidance of trade barriers spurred the
emergence in the late 1980s of export-
oriented international production in
labour intensive production of textiles,
clothing and other labour intensive
goods, including electronic and
electrical products in the developing
countries of Asia
Domestic industrial upgrading, rapid
economic growth, trade barriers in
export markets and appreciating Korean
won threatened the exports of consumer
(chaebols) durables (electrical and electronics
products and cars) as well as steel
products. This led to international
production in assembly of final goods
in the developed countries initially in
the 1980s and in developing countries
of Asia in the late 1980s and 1990s
Domestic industrial upgrading in more
advanced manufacturing industries
precipitating FDI in developed
countries to gain access to advanced
foreign technologies and marketing
expertise

Source: Author’s compilation based on the analysis contained in the
country chapters.
Table 12.3 Resource-scarce large countries: technological accumulation and the national course of outward direct investment

<table>
<thead>
<tr>
<th>Stages of national development</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form of technological competence of leading indigenous firms</td>
<td>Basic engineering skills, complementary organizational routines and structures</td>
<td>More sophisticated engineering practices, basic scientific knowledge, more complex organizational methods</td>
<td>More science-based advanced engineering, organizational structures reflect needs of coordination</td>
</tr>
<tr>
<td>Type of outward direct investment</td>
<td>Early resource-seeking market-seeking or export-oriented investments in manufacturing and services</td>
<td>More advanced resource-oriented, market-targeted or export-oriented investments in manufacturing and services</td>
<td>Research-related investment and integration into international networks</td>
</tr>
<tr>
<td>Industrial course of outward direct investment</td>
<td>Resources based (extractive MNCs or backward vertical integration), simple manufacturing, trading, banking, insurance, transportation and construction</td>
<td>More forward processing of resources, or growth of fabricating industries for local markets or exports; growth of services</td>
<td>More sophisticated manufacturing and services systems, international integration of investment</td>
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<th>Stage of development</th>
<th>United Kingdom starting in the 1820s</th>
<th>between 1870 and 1900 and 1900</th>
<th>since the Second World War starting in the 1970s</th>
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<td>Germany</td>
<td>starting in the 1880s</td>
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<td>Japan</td>
<td>starting in 1877</td>
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<td>currently still unreached</td>
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<td>Taiwan</td>
<td>starting in the late 1950s</td>
<td>starting in the 1970s and 1980s</td>
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<td>South Korea</td>
<td>starting in the 1960s</td>
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to search for, and gain control over, sources of natural resources in resource-rich foreign countries. This objective could not be effectively pursued through trade owing to market failure of various forms. Indeed, much of the FDI by firms from the United Kingdom and Germany in the nineteenth century, as well as those of Japan in the 1950s and 1960s and those of South Korea and Taiwan in the 1960s, 1970s and 1980s was of this type.

However, outward FDI to extract natural resources for MNCs based in Taiwan has been less important compared to MNCs from other countries that share features of its national economic development—the United Kingdom, Germany, Japan and even South Korea—and in which resource extractive FDI played a more prominent role in the pattern of outward FDI particularly in the early phases. In the case of Taiwan, outward FDI to secure supplies of essential natural resources and raw materials even at its peak in the 1960s and 1970s did not account for more than 10 per cent of the stock of approved FDI. Two factors may have contributed to such small share: the rising tide of resource nationalism in developing countries since the late 1960s and the high capital intensity of FDI of this type which Taiwanese MNCs cannot provide. Perhaps the importance of Taiwanese FDI in resource extraction has been masked by outward FDI in resource processing manufacturing industries that have either been relocated to resource-rich host developing countries in South East Asia to serve host country markets and/or engage in the export of semi-processed raw materials from the resource-rich host countries to Taiwan.

So important was resource extractive FDI for the United Kingdom that among the oldest British MNCs were ‘free-standing’ firms, i.e. firms which did not undertake any prior production in the United Kingdom before investing abroad but were created primarily for the purpose of undertaking resource-related business exclusively or mainly abroad. This was a prominent feature of the emergence of British MNCs (Wilkins, 1988a) which was not evident in the emergence of MNCs from Germany, Japan, South Korea and Taiwan where for the most part resource-based FDI were undertaken by manufacturing firms, trading companies and even banks (as seen in the historical oil-related activities of Deutsche Bank and its holding companies). However, apart from free-standing firms, resource-based firms as well as manufacturing companies, petroleum companies and trading companies of the United Kingdom similarly engaged in resource extractive FDI.

Manufacturing FDI

Although manufacturing was an important sector in the origins of MNCs from the five resource-scarce large countries analysed in this part of the book, the manufacturing FDI that emerged differed across the five countries in the kinds of industries that spawned the earliest MNCs, the kinds of firms that initiated international production, the determinants of such international production and their principal host countries.
The manufacturing industries that spawned the earliest MNCs differed across the five countries. The international production of a significant number of British manufacturing MNCs emerged in branded consumer goods (Dicken, 1992; Chandler, 1986) which was a reflection to a large extent of the comparative advantages of the United Kingdom in labour intensive, capital neutral and human capital-scarce products (Crafts and Thomas, 1986) and the technological hegemony of the United Kingdom in the industries associated with the First Industrial Revolution. Many of these companies were in the textiles or textiles-related industries that had grown first and foremost in the United Kingdom and had began to invest in a major way in the United States, Canada, France, Germany, Russia (Wilkins, 1989). Some of the other early British manufacturing MNCs in consumer goods industries were British American Tobacco (tobacco), Bryant & May (matches), J. & P. Coats (cotton thread), Courtaulds (rayon), Dunlop (rubber tyres), English Sewing Cotton (cotton thread), Gramophone (records), Lever Brothers (soap), Pilkington Brothers (glass) and Reckitt & Sons (household products). Only to a limited extent did British manufacturing MNCs emerge from the more technology intensive and knowledge intensive industries spurred by the Second Industrial Revolution in the second half of the nineteenth century. This was the case with Babcock & Wilcox (industrial machinery), Nobel Explosives (chemicals), Royal Dutch Shell (oil), Vickers (armaments) and Burroughs Wellcome (pharmaceuticals) (Dunning and Archer, 1987).

By contrast, the industries that spawned the earliest German FDI in manufacturing were the new, skills intensive, technically advanced and fast growing industries of the Second Industrial Revolution in the late nineteenth century: chemicals, pharmaceuticals, machinery, electro-technical and motor vehicles. German firms rapidly became significant world producers and exporters of their new products on the basis of accumulated expertise and proprietary technology. Such strengths, combined with access to international capital markets at least until the end of the First World War, enabled German firms to invest abroad on a substantial scale, and to exert a significant economic impact within their host economies. However, German FDI prior to 1914 was also present in capital goods industries such as iron and steel manufacture, and in consumer goods industries such as textiles, particularly in woollens and silk and, similar to the British MNCs, in a number of trade-marked consumer products (consumer pharmaceuticals, pencils and food products).

The emergence of Japanese MNCs, Taiwanese MNCs and South Korean MNCs in manufacturing bear a closer resemblance to the pioneering British MNCs in their concentration on industries reflecting a comparative advantage in labour intensive, capital neutral and human capital-scarce products rather than in the higher technological intensity of the early German MNCs. The emergence of manufacturing FDI in Japan perhaps bears the closest similarity to that of the United Kingdom in their common basis in textiles or textiles-related industries. Indeed, just as the textile industry had its historical origins in the United Kingdom and brought forth some of the earliest British MNCs in manufacturing, textiles was the dominant domestic industry of Japan in the late
nineteenth and early twentieth century and it was the first industry in which Japanese manufacturing MNCs and some trading companies initiated international production.

By contrast, the pioneering industries of Taiwanese and South Korean manufacturing FDI were closely similar. These were food and drink, synthetic fibre processing, paper products, plastic and plastic materials, non-metallic minerals, primary metals and machinery in the case of Taiwan, and non-metallic mineral products, food, beverages and tobacco, paper and paper products, and basic metal (steel) products in the case of South Korea. These were generally processing industries of the First Industrial Revolution in which the United Kingdom had a technological hegemony but at the time of the emergence of the Taiwanese and South Korean MNCs were already fairly technologically standardized industries. The different industrial structure of the earliest manufacturing FDI of Japan, Taiwan and South Korea by comparison to those of the United Kingdom and Germany can be explained by the earlier stage of national development in which Japan, Taiwan and South Korea engendered MNCs of their own and thus the more basic industries in which domestic firms developed ownership-specific advantages. Thus, MNCs have not always emerged in technologically advanced industries with firms that have highly developed firm-specific advantages.

Types of firms that initiated the pioneering manufacturing FDI

Although some of the historical British manufacturing FDI were initiated by free-standing companies and trading companies such as Jardine Matheson & Company that established the Ewo Cotton Spinning and Weaving Company in Shanghai before 1914 (Wilkins, 1986b), direct capital exports of the United Kingdom consisted more of the establishment of foreign subsidiaries and branches by manufacturing companies mentioned above that were already operating in their home countries—essentially the kind of foreign activity of the modern classic MNCs which mainly predominates in modern time (Dunning and Archer, 1987). All of the major pioneering British MNCs that emerged pre–1914 held strong oligopolistic positions in their domestic markets, and several were members of international cartels or market-sharing agreements (examples included Babcock & Wilcox, British American Tobacco, Bryant & May, Gramophone and Nobel Explosives). The managerial and technological competences developed in their home countries gave firms the ability to initiate and sustain their international production activities.

The German firms that initiated manufacturing FDI were also predominantly large manufacturing firms in industries producing the newest and most technologically advanced products whose emergence can also be attributed to the rapid development of administrative hierarchies in German business organizations (Wilkins, 1988b). These technologically innovative large-sized manufacturing firms led the process of German MNC expansion in high-technology industries introducing new products and processes through FDI. However, there were also large-sized but less technologically intensive manufacturing firms that were responsible for German FDI in capital goods industries such as iron and steel manufacture, and there were also relatively smaller and more moderate-sized German MNCs in trademarked consumer goods industries prior to 1914.
As in the German case, manufacturing firms were also solely responsible for the earliest Taiwanese manufacturing FDI. These firms were often the largest firms in their respective industries (Schive and Hsueh, 1985) but were perhaps not as large as the pioneering German or British manufacturing companies and were not in the high-technology industries that spawned German manufacturing MNCs nor branded consumer goods industries that bred most of the pioneering British manufacturing MNCs.

By contrast, two types of firms initiated Japanese and South Korean manufacturing FDI: manufacturing companies and trading companies. The emergence of Japanese FDI in manufacturing were initiated by the cotton spinning companies and trading companies, thus bearing a closer similarity to the types of firms that generated the earliest British manufacturing FDI. Indeed, one of the earliest successful Japanese FDI in the cotton textiles industry were those initiated by the Japanese general trading company (sogo shosha), Mitsui & Co., which acquired two Chinese cotton spinning mills between 1902 and 1906 through a local subsidiary—the Shanghai Cotton Manufacturing Company—organized by the trading company in 1908. Other prominent Japanese trading companies that initiated manufacturing FDI in the industry were the Japan Cotton Trading Company and the Naigaiwata Company (Wilkins, 1986b; Yasumuro, 1984).

In the case of South Korea, manufacturing FDI was pioneered to a far larger extent by manufacturing companies than by trading companies. An analysis of the type of firms engaged in Korean FDI in manufacturing showed that some 30 of the 37 manufacturing projects as of 1982 represented the horizontal integration of manufacturing firms, while only 7 projects were undertaken by general trading companies to secure semi-processed raw materials such as pulp and wool (Koo, 1984). These were predominantly medium-sized manufacturing firms engaged in semi-skilled labour intensive domestic production of resource intensive products in South Korea. Owing in part to their new status as MNCs and unfamiliarity with the conduct of international business in foreign countries as well as the restrictions on foreign ownership, particularly in developing countries, some 65 per cent of the overseas manufacturing projects of South Korean firms in 1982 (or 24 of the 37 manufacturing projects) and some 71 per cent of those in developing countries were those in which South Korean firms had minority equity participation (Koo, 1984).

**Determinants of international production**

The determinants of international production by firms from the five countries in both the traditional and modern industries have a common basis in the inability of important foreign markets to be supplied, or supplied as cheaply, through exports. The precise reason for the inadequacy of arms-length trade to service foreign markets differed across the five countries. In the case of the United Kingdom, import restrictions imposed by the host governments more often than not were the key element that rendered exports uncompetitive in foreign markets. Indeed, imported manufactured products faced higher tariffs in the United States, Canada and most European countries after 1880 (Jones, 1996). Only in limited cases was the initial decision by British firms to engage in international production before 1914 based on more favourable production costs in the foreign location, the provision of host government incentives or patent legislation.
(Coram, 1967; Buckley and Roberts, 1982). In addition, high transport costs encouraged foreign production by Babcock & Wilcox, Gramophone and Nobel Explosives whose products were high volume/low value or dangerous to export over long distances (as in the case of Nobel Explosives). Tariffs and transport costs often combined to prompt British manufacturers to establish overseas subsidiaries, particularly in countries where there was strong or emerging indigenous competition. Another contributory factor that prompted the shift from exports to international production by British manufacturing firms particularly those in the more modern fabricating industries was the need to sustain a process of competition between firms in oligopolistic industries (Dunning and Archer, 1987).

By contrast, the determinants of the earliest international production by German manufacturing MNCs was spurred by a more complex set of factors. In the chemicals industry, the major determinants were the imposition of tariffs after 1877 in Russia—the most important export market for German chemicals—as well as the relatively high import duties in the United States on pharmaceutical products or the total prohibition against the import of pharmaceuticals in tablet or capsule form in France. In some cases, non-tariff barriers such as the peculiar nature of marketing pharmaceutical products in the United States in which chemists’ shops were not supervised by scientifically trained pharmacists with the consequence that preference was often accorded to the sales of ready-made and packed drugs prompted the international production of German pharmaceutical companies. In contrast to British manufacturing FDI, other major determinants that affected the emergence of the highly technologically intensive German manufacturing MNCs was stringent patent legislation in foreign countries that required the initiation of local production after a period of time and in an extreme case the French patent law of 1844 which did not allow the patenting of any type of medicine. This coerced the German pharmaceutical company E. Merck to conclude a limited joint venture with a local firm to market E. Merck’s brand names for some pharmaceutical products bottled and packed in France (Hertner, 1986a).

In the electro-technical industry, the establishment of foreign factories was often initiated as a consequence of considerable demand from the Russian government to construct and maintain a telegraph network (the case of Siemens), the growing pressures from the Russian administration which insisted on domestic production for continuing state orders of public utilities [the case of Allgemeine Elektricitäts-Gesellschaft (AEG)], the subsidies extended by the French state to domestic producers of trucks whose parts were made solely in France, the need to service the needs of the French car industry (the most important car industry in pre-1914 Europe and a highly important customer), and the need to respond to the requirement for domestic production of components used for racing cars participating in certain racing events in Great Britain (the case of Bosch that initiated international production in France and the United Kingdom of magneto ignitions for cars and trucks). In addition, the high cost of freight and the 45 per cent tariff on the value of magnetos led to the construction of a magneto factory in Springfield, Massachusetts in 1910 where production started in 1912.

While state intervention in the form of tariffs or non-tariff barriers as well as patent legislation in host countries were the major explanatory factors, particularly if the state
was an important customer as in the case of Russia, there were other contributory factors of which the most significant was the access to international capital markets of the Unternehmergesellschaft, the large German trusts that founded local and regional power, tramway and lighting companies in Russia, Italy, Spain and Latin America. Such establishment of intermediate financial holding companies enhanced the capacity of the newly created German public utility companies abroad to engage in FDI as it provided a means to overcome the chronic lack of capital of their major customers—the local public authorities in foreign countries—and to counteract the liquidity problems of the electro-technical firms themselves associated with the accumulation of a growing volume of equity capital and bonds in their portfolio.

The determinants of the switch from exports to international production in the case of the pioneering Japanese MNCs in manufacturing in the cotton textiles industry stemmed from the Shimoneseki Treaty of 1895 which allowed foreigners to manufacture in Chinese treaty ports for the first time. The consequent establishment of foreign-owned cotton spinning factories in China by British trading companies such as Jardine Matheson & Company and three foreign textile firms from Great Britain, the United States and Germany (Wilkins, 1986b) combined with the incipient growth of Chinese investments in spinning mills, and the sale in China of cheap Indian yarn posed a threat to the continued growth of the Chinese export market for both Japanese cotton spinners and trading companies. In addition, much of the Japanese FDI in China in the early twentieth century may have been made initially to ascertain local costs of production in China and to keep close watch over the Chinese textile market. This contrasts with the case of the pioneering British and German manufacturing MNCs in which there was little reason to suppose that lower production costs abroad influenced the initiation of outward FDI before 1914 since international production seldom occurred in very labour intensive industries, and hence low labour costs abroad were rarely an enticement.1

The predominant motivations behind international production of the earliest Taiwanese MNCs and South Korean MNCs were in a class of their own. Given their concentration on processing industries and heavy and chemical industries, the earliest manufacturing projects initiated by Taiwanese and South Korean firms was determined by the search for markets, the security of export markets and access to abundant raw material supplies, cheaper energy and land costs.

Host countries of manufacturing FDI

In general, the host countries of the earliest FDI in manufacturing in the five countries were their major export markets, a finding that provides broader empirical support for the product cycle model of Vernon (1966) in explaining the initiation of international production by American MNCs in their major export markets. The strong ownership-specific advantages of British and German MNCs and the high income elasticity of demand for their export products formed the basis for the establishment of international production in developed host countries. The emergent import substituting manufacturing investments by British firms prior to the First World War displayed a preference for high-income markets, but with some bias towards countries belonging to the British empire.
owing to political and other psychic ties. Similarly, German manufacturing FDI were largely directed apart from Russia towards the more industrialized countries of Europe (France, the United Kingdom, etc.) and the United States. By contrast, the geographical destination of the earliest international production activities by Japan, Taiwan and South Korea was directed towards developing countries of South East Asia and China predominantly, and can be explained by the early stage of national development at which Japan, Taiwan and South Korea engendered MNCs of their own and thus the more simple ownership-specific advantages possessed by the leading domestic firms. The pioneering manufacturing FDI by Japan was directed to China, the major export market for Japanese exports of cotton manufactures and yarn. Similarly, there was a marked concentration of the earliest manufacturing FDI by Taiwan and South Korea in their major export markets in South East Asia primarily, particularly in those countries with abundant natural resources. Africa and Oceania were also significant host countries for South Korean manufacturing FDI.

**FDI in trading, distribution, marketing and after-sales services**

The scarcity of natural resources of the five countries and the consequent large dependence on international trade as both an engine and handmaiden of economic growth led to a common emergence of a domestically based infrastructure in support of trade—banks, shipping companies, marine insurance companies and, above all, trading companies. The United Kingdom bred the oldest trading companies serving world markets directly established or supported by the state, of which the shining example was the British East India Company chartered in 1602 (Dunning, 1993). The proliferation of British trading companies had important consequences on the development of British business abroad not only in initiating FDI in trading, transportation and distribution to execute their roles in trade intermediation but also in initiating some international production. This could take the form of trading companies acting as the core of British-based investment groups established before 1914 (Chapman, 1985). Trading companies or mercantile houses that established trading outlets throughout Europe in the period prior to 1914 also formed a significant aspect of the early German MNCs. In fact, the German trading house—Schuchardt and Schutte—was regarded as the most prestigious distributor of machine tools in Europe (Feldenkirchen, 1987).

The role of general trading companies in the history of Japanese and South Korean MNCs was similar. The Japanese general trading company Mitsui Bussan—the foreign trading arm of The Mitsui Company—was one of the pioneering Japanese companies that developed a sizable trading business in China prior to 1914. Mitsui Bussan opened its first overseas branch in Shanghai in 1877—a year after its foundation—for the initial purpose of facilitating the sales of Japanese exports of coal in China and later expanded to include the importation of Chinese raw cotton for the Osaka Spinning Mills closely associated with the company, as well as re-oriented to the sales of Japanese cotton yarn and fabrics in China. It also established offices with trading interests in Hong Kong, Paris, Milan and New York. Before 1914 Mitsui Bussan had more than 30 branches in Asia, Europe, Australia and the United States, in addition to their manufacturing affiliates
in China (Jones, 1996). The other two major Japanese general trading firms participating in the raw cotton trade between Japan and the United States—Japan Cotton Trading Company and the Gosho Company—similarly established trading offices in Texas before the First World War. Most Japanese trading companies were also involved in facilitating the growth of exports from Japan and China to the United States in other products. Such was the case, for example, in medicinal and aromatic products (Wilkins, 1986b).

In a similar fashion, the Korean general trading companies as trading arms of the large conglomerates (chaebols) invested in FDI in trading, warehousing and transportation in major foreign markets to promote the growth of South Korean exports and facilitate its imports. However, unlike in the case of the United Kingdom, Germany and Japan where the trading companies dominated trade-promoting FDI, this was not the case with South Korea where apart from the general trading companies, a number of export-oriented South Korean manufacturing firms have integrated forward through the establishment of overseas branch offices in sales or trading, warehousing facilities, and distribution channels in their foreign markets. This was considered a first step in the internationalization process of South Korean manufacturing firms to ensure the continued growth of industrial exports in the face of the growth of protectionism and competition in major export markets.

By comparison to South Korea in which two types of firms were responsible for outward FDI in trading, marketing and distribution, in the Taiwan case outward FDI of this type was solely generated by the large export-oriented manufacturing companies which were most keen to set up trading offices in their major export markets. This was similarly considered a first step in the internationalization process of Tatung, the largest Taiwanese electronics and electrical appliance producer, which established marketing affiliates in the United States and Singapore in 1972 before initiating international production of electric fans in the United States in 1975 and of colour television sets in 1977. The firm also established another colour television plant in the United Kingdom in 1981 (UN, TCMD, 1993a). However, for other Taiwanese manufacturers such as Sampo—Taiwan’s third largest home appliance manufacturer behind Tatung and Matsushita (Taiwan)—FDI in sales and distribution was the sole means employed by the company to exploit foreign markets (see Bamford, 1993).

Related to export-oriented FDI was the expansion abroad of German, Japanese, Taiwanese and to a lesser extent South Korean banks which formed a significant aspect of their country’s business overseas. The role of the large German banks that established foreign branches in Europe, North and South America, Asia and Africa prior to 1914 helped to support the expansion of German business abroad. Domestic banks in Japan similarly played a strategic role in the expansion of Japanese business abroad. In no way is this more evident than in the case of the Yokohama Specie Bank whose history was intimately associated with the growth of Japanese business worldwide. The development by the bank of an extensive network of offices, branches and subbranches worldwide and its role in the intermediation of the flow of foreign capital for use in Japan or in the various business activities of Japan abroad enabled it to play a key role in the growth of Japanese trade and FDI. The Industrial Bank of Japan organized in 1900 similarly helped to finance government-sponsored investment ventures, extended loans to the Tayeh
mines that became a part of the Hanyehping Company complex and raised finance for the South Manchurian Railway and other Japanese investments in China. The Yasuda Bank, a private Japanese bank, also had Chinese interests (Patrick, 1967). Other Japanese banks that established foreign branches in countries other than China was the Dai Ichi Ginko which by opening a branch in Korea in 1878 became the first Japanese bank to branch abroad. An Osaka-based bank also established a branch in Taiwan before it became a Japanese possession in 1895, and the Bank of Japan followed suit in 1896. The Bank of Taiwan, established three years later by the Osaka-based bank in Taiwan, had in turn established by 1914 branches in San Francisco, Manila, Singapore, Calcutta, Bombay, 7 points in China and 14 points in Japan and its dependencies (Wilkins, 1986b). Similarly, one of the main objectives that governed the FDI of Taiwanese banks such as Bank of Communications, the International Commercial Bank of China and Chang Hwa Commercial Bank in the 1980s was the need to service the financial needs of individual Chinese residents overseas as well as home country firms, particularly Taiwanese exporters, by way of providing credit evaluations, export documentation and other associated export financing services (Bamford, 1993). Indeed, banks and other financial institutions helped to support the growth of the international business of the resource-scarce large countries, particularly of Germany, Japan and Taiwan.

Such strategic role of domestic banks in the expansion of the business abroad of Germany, Japan, and Taiwan differed in the case of the United States and the United Kingdom. In the case of the United States, national banks could not establish foreign branches until after the passage of the Federal Reserve Act of 1913 while private banks established outlets in London and Paris principally to encourage the flow of European monies to America (Wilkins, 1988b). The lack of British ‘universal’ banks (Cottrell, 1991) precluded the possibility of the British banking sector to assist directly in the expansion of British business abroad. Instead, it was often the investment group with a trading company at its core that fulfilled a more significant and major role (Chapman, 1985). In the case of South Korea, the government provided finance to eligible FDI projects as part of a package of investment incentives to include low-cost loans from the Korea Eximbank or the Overseas Resource Development Fund (in the case of projects that seek to develop mineral resources overseas) and payment guarantees by South Korean commercial banks (Koo, 1984).

**The evolution of MNCs**

Despite the common origins of the MNCs based in the five resource-scarce large countries in certain types of outward FDI, the evolution of their outward FDI while sharing some similarities particularly with respect to MNCs based in Japan, Taiwan and South Korea have also some notable differences. At the broad sectoral level, the rapidly growing importance in recent decades of the services sector in the domestic economies of the United Kingdom, Germany and Japan has been reflected in the sectoral pattern of their outward FDI. As shown in the individual country chapters, while the share of the manufacturing sector in the outward stock of British FDI has remained around 35 per
cent between 1960 and the early 1990s, the services sector became the dominant sector of British FDI since 1991. Thus over the course of some 200 years, the dominant sectoral pattern of British FDI has shifted from the primary sector in the period prior to 1914, towards the secondary sector for much of the period since the Second World War, and then the tertiary sector since the 1990s. Similarly, although the manufacturing sector continues to be an important area of investment by German MNCs accounting for around 44 per cent of total German outward FDI in 1997, outward FDI in the services sector since the 1990s has become increasingly dominant at the expense of the secondary sector. The same trend is evident in the case of Japanese FDI when the services sector accounted for 62.2 per cent of the stock of approved FDI as of 1997. Finance-related FDI has been at the forefront of Japanese FDI in recent years and its motivations have expanded progressively beyond its traditional role in supporting the growth of Japanese trade towards supporting the growth of the largest banks of Japan as one of the world’s largest banks and financial institutions (Randerson and Dent, 1996).

By contrast, the manufacturing sector remains the dominant sector of economic activity in the outward FDI of both Taiwan and South Korea, a reflection once again of the earlier stage of their national economic development. In 1995, the sector accounted for some 59 per cent of the stock of approved Korean FDI, a significant growth from its one-third share at the end of the 1980s, and 17 per cent share at the end of the 1970s. In Taiwan, the manufacturing sector accounted for less than 60 per cent of the stock of approved FDI in the 1990s but the share of the sector had been declining from 63 per cent at the end of the 1980s, and 78 per cent at the end of the 1970s, in a trend opposite to South Korea.

The analysis below compares and contrasts the evolution of MNCs based in the five countries, and their association with domestic industrialization across different countries with a focus on the manufacturing sector where some of the most important changes have taken place throughout the course of their history (Table 12.2).

International production by British manufacturers has essentially remained oriented towards the mature, relatively low technology sectors whose competitiveness emanated from the high income and large size of the British market. These were firms of large size and established technological advantages which derive strengths from product differentiation, quality, and marketing and managerial skills and experience. These characteristics favoured the continuing pre-eminent role of consumer goods firms as British MNCs during the inter-war years and for much of the period since the Second World War.

Several of the British MNCs that emerged in the higher technology industries continued to depend greatly on new technological developments from the United States. The slow adjustment of British firms to the more rapid growth opportunities offered by the modern industries of the Second Industrial Revolution was regarded to be a function of the peculiar nature of the British economy which posed a host of institutional barriers that prevented industrial restructuring towards the growth-oriented sectors, including investments in innovation that would sustain those industries. Such barriers included, among others, the lack of provision for commercial studies and for any kind of technical education for managers and industrial staff (Ashworth, 1960; Chandler, 1980).
contributory factors were the risk averse strategy of British firms which continued to emphasize industries and sectors in which past successes had been based, the presence of a protected home market and the continuing preferential market access in the empire and Commonwealth markets during the 1940s and 1950s (Dunning and Archer, 1987). As a result, British MNCs still have not featured prominently in the more modern and growth-oriented manufacturing industries, but the few that emerged have been the most active in pursuing more rationalized or efficiency seeking FDI since the 1970s associated with an increasing amount of intrafirm trade and product and process specialization. Among the more globalized British firms are Imperial Chemical Industries, Glaxo, Unilever and Shell. These companies have adopted a transnational strategy in at least some of their value-chain activities, including R&D (Lane, 1998).

On the other hand, for the British MNCs in traditional consumer goods industries that neither engaged in rationalized production and investment nor sought to benefit from transaction cost advantages, their incentives to internationalize in the period since the Second World War were not dissimilar to that in the earlier periods. These firms remained keen to exploit their preferences to produce in the markets of the empire and Commonwealth until the early 1960s when the exporting route became difficult or no longer practical. As the imperial legacy of the United Kingdom bore less of an influence on the geographical pattern of British FDI, there has been a re-direction of outward FDI towards the United States and Western Europe since 1960.

Such dualistic pattern of the British international production is a reflection of the domestic economic structure of the United Kingdom which although geared towards the industries of high and medium technology is propelled by the investments of foreign-based MNCs. The more traditional low technology and consumer goods manufacturing sectors on the other hand are where the indigenous strengths of British firms lie which explain the dominant role of these sectors in the foreign activities of British MNCs. Inward and outward FDI in and from the United Kingdom has, therefore, been directed towards different industries. This also helps to explain the different patterns of exports of the United Kingdom and that of the international production of British MNCs. The industrial structure of British manufactured exports in the years between 1965, 1970 and 1975 continued to differ sharply from that of its manufacturing FDI but for an entirely different reason than that pertaining to the end of the nineteenth century when international production displayed a higher technological intensity compared to that of exports. A study conducted by Clegg (1987) indicated that capital intensity and the skill level of managerial manpower exerted significant positive influences on British FDI in manufacturing between 1965 and 1975, while the skill level of production workers exerted a highly significant negative influence. This contrasts sharply in the case of British exports of manufacturing in which technological intensity exerted a highly significant positive influence.

Britain’s present day comparative advantage which rests on the production of labour intensive, capital neutral and human capital-scarce products has remained essentially stable since 1870 (Crafts and Thomas, 1986). Firms in a broad range of industries continue to be more concerned with the production of low-cost standardized goods than with high-quality, technology intensive niche products (Porter, 1990). The employment
pattern developed on this basis may have even become further entrenched during the 1990s (Nolan and Harvie, 1995).

By contrast, the high technological intensity that has always consistently described German manufacturing MNCs throughout the course of their history stems from the position of Germany as the birthplace of modern science in the late nineteenth century (Porter, 1990). This helped the country to develop a deep scientific and technical knowledge base drawing on an abundance of skilled workers and professionals which proved instrumental in their efforts to upgrade domestic industry in the new, skills intensive, technically advanced and fast growing industries of the Second Industrial Revolution in the late nineteenth century. German strengths in the chemicals, pharmaceuticals, machinery, electro-technical and motor vehicles industries continued to grow and German firms became significant world producers and exporters of their new products on the basis of accumulated expertise and proprietary technology. Such strengths combined with access to international capital markets at least until the end of the First World War enabled German firms to invest abroad on a substantial scale, and to exert a significant economic impact within their host economies.

The defeat of Germany in the two world wars and the sequestration of tangible and intangible assets abroad after the Versailles Treaty discouraged the further international expansion of German FDI until two decades after the Second World War. This affected adversely their most dynamic set of firms—the manufacturing companies—that nevertheless possessed a substantial amount of surplus capacity. The confiscation of assets crippled firms in the chemicals industry the most whose intangible assets such as brand names and patents were invaluable in relation to physical assets. The loss of overseas holdings at the end of the First World War and the severe constraints posed by the shortage of capital in the inter-war period forced German firms to replace FDI with other modes of international economic expansion that conserved the use of capital and entailed less risks, primarily political risks. In the period between 1918 and 1939 these other modes were principally cartels and long-term contracts (including licensing agreements) in which German industry had experienced considerable success before the First World War. These tools came to be used more widely by German firms than by firms of another nationality (Schröter, 1988).

Notwithstanding the second round of defeat of Germany in the Second World War and the second round of loss of some of the most modern parts of its industrial base and natural resources along with the confiscation of German patents and foreign assets, strong pressures were created to upgrade German industry in advanced, knowledge-based industries and to foster technological innovation in indigenous firms (Porter, 1990). However, German firms remained essentially domestically embedded in their country as manifested in their continued preference for exporting over FDI as an internationalization strategy even to the present time, and in the continuing concentration of their outward FDI in Western Europe (Lane, 1998). Some recovery of Germany as an important home country of FDI became evident only in a major way since the 1970s. The comparatively high level of R&D intensity characteristic of German firms and MNCs from the beginning remained their most consistent distinguishing feature that sets them apart from MNCs of other nationalities. Indeed, a regression analysis of the industrial advantages of
Germany on pooled cross-sectional sets of data for the years 1965, 1970 and 1975 showed that the degree of innovation and the creation of technological ownership advantages as well as the skill level of managerial manpower exerted highly significant positive influences on German FDI in manufacturing, while the skill level of production workers had a significant negative effect. This roughly mirrors the findings for German manufactured exports which showed that the technological intensity and the skill level of production workers exerted highly significant positive influences, while capital intensity and the complexity of management exerted significant negative influences (Clegg, 1987). The findings show that the ownership advantages of German MNCs unlike those of MNCs based in the United States or the United Kingdom were based more on technology and skilled labour than on capital intensity. During this period, there was no evidence to show that access to capital was an ownership advantage of German MNCs in the way that it was during the period prior to 1914. In the concentration of German FDI in Western Europe, German MNCs also have a more narrow geographical focus compared to American or British MNCs, and have taken place in a narrow spectrum of medium- to high-technology industries in which domestic industry activity is also strong.

The evolution of Japanese MNCs in manufacturing is in many respects sui generis in the growth of modern MNCs. Although the origins of Japanese MNCs can be traced to the late nineteenth century, the early pattern of Japanese FDI remained essentially the same from the period prior to 1914 through to the inter-war period. The early stage of domestic industrial development in which Japan generated MNCs of their own explains why Japanese MNCs from the period of their emergence until the Second World War did not derive their ownership-specific advantages from technological strengths and organizational competence, the possession of brand and trademarks and the ability to supply high-quality, differentiated goods which described the manufacturing MNCs from the United Kingdom and Germany since their emergence in the nineteenth century. However, the period since the Second World War was associated with the rapid domestic industrial transformation of the Japanese economy accompanied by the rapid evolution of Japanese FDI in manufacturing. In this period more than ever before, Japan’s outward FDI was a crucial instrument or catalyst for the rapid process of domestic industrial upgrading (Ozawa, 1985; Kojima and Ozawa, 1985). The rapid industrial transformation from a concentration on the primary sector towards the secondary and tertiary economic sectors, and within the secondary sector from labour intensive light manufacturing and heavy and chemical manufacturing to knowledge intensive, fabricating assembly-based industries and mechatronics-based, flexible manufacturing of highly differentiated goods accompanied by a continual rapid rise in labour productivity and wages at the end of each phase have led to shifting patterns of production and trade competitiveness for Japanese manufacturing companies as well as evolving patterns of Japanese MNC activities.

Ozawa (1991) analysed the industrialization process of the Japanese economy since the Second World War in four sequential stages that corresponded with equivalent phases or waves in the growth of Japanese cross-border production.

**Phase I** Expansion of labour intensive manufacturing in textiles, sundries and other low-wage goods in 1950 to the mid-1960s. This industrialization phase corresponded with the ‘elementary’ stage of Japanese offshore production in Heckscher-Ohlin
industries. This stage of Japanese overseas production took place in a major way between 1971 and 1973, with the investments in 1972 and 1973 alone more than doubling the existing stock of Japanese FDI. The stage was associated with the transfer of standardized, low-technology labour intensive production from Japan to developing countries such as Taiwan, South Korea, Hong Kong, Thailand and other Asian economies in close geographical proximity and had an abundant labour supply (Ozawa, 1991). China did not seem to be as important a host country in this period in the way that it was in the period prior to 1914 and in the inter-war years.

**Phase II** Scale economies-based modernization of heavy and chemical industries such as steel, aluminium, shipbuilding, petrochemicals and synthetic fibres in the late 1950s to the early 1970s. This industrialization phase corresponded with the Ricardo-Hicksian trap stage of Japanese multinationalization associated with the non-differentiated Smithian industries. Thus, while Japanese FDI in both trading and in resource extraction was both geared to secure stable supplies of industrial raw materials (minerals, oil and other natural resources) in foreign countries (Ozawa, 1977, 1982), FDI in manufacturing also grew with the transfer overseas of some of the resource intensive and often pollution-prone industries. The demand for intermediate industrial goods associated with the rapid industrialization in the newly industrialized countries, especially South Korea, Hong Kong, Singapore, Taiwan and Brazil provided an additional incentive to FDI by Japanese capital goods producers. In sum, Japanese outward FDI in this phase was an important means to overcome the Ricardo-Hicksian trap of industrialization and economic growth.

**Phase III** Assembly-based, sub-contracting dependent, mass production of consumer durables such as cars and electrical/electronics goods from the late 1960s to the present. This industrialization phase corresponded with the export substituting-cum-surplus recycling stage of Japanese multinationalization associated with the differentiated Smithian industries. Indeed, in this third phase of Japanese multinationalization and for the first time in the history of Japanese MNCs, tariffs and other trade barriers became the major factor precipitating the shift from exports to international production. In common with the protectionist trend starting from the 1880s which spurred the growth of American, British and German manufacturing MNCs, the growth of ‘new protectionism’ from the 1970s stimulated the growth of Japanese manufacturing FDI in new industries (Jones, 1996).

**Phase IV** Mechatronics-based, flexible manufacturing of highly differentiated goods involving the application of computer-aided designing (CAD), computer-aided engineering (CAE) and computer-aided manufacturing (CAM), along with technological breakthroughs such as high definition TV, new materials, fine chemicals and more advanced micro-chips in the early 1980s onwards. While Ozawa (1991) did not identify the corresponding phase of Japanese multinationalization associated with this industrialization phase as he regarded this type of Japanese FDI to be still speculative, this fourth phase of Japanese multinationalization which has yet to evolve fully in the future can be labelled as the robotics and new materials stage of Japanese multinationalization associated with the Schumpeterian industries.

Thus, over time Japanese MNCs have evolved towards an increasingly advanced phase of international production owing largely to efforts at rapid domestic industrial
transformation and technological advancement in Japan. As a result, Japanese MNCs over the course of their evolution have also drawn strength from the same set of strong ownership advantages that propelled the emergence and growth of the more mature MNCs from the United Kingdom and Germany.

To the extent that Taiwan manufacturing FDI and South Korean manufacturing FDI could be compared with that of Japan since the Second World War, the first and second phases of Japanese FDI in labour intensive manufacturing in textiles, sundries and other low wage goods (the first phase) and in heavy and chemical industries during the Ricardo-Hicksian trap stage of Japanese FDI (the second phase) had been transposed in the case of the history of both Taiwanese and South Korean manufacturing MNCs. This is associated with a prolonged dependency or sustained comparative advantage of both the Taiwanese and South Korean economy on labour intensive production until the late 1980s. The basis of the prolonged competitiveness of these industries derived from a policy in both states of wage suppression and the political subordination of popular sectors (i.e. middle stratum of professionals, skilled workers, businessmen and farmers) to the state (Shin and Lee, 1995) which was brought to an end with political democratization in both countries from around 1987. Thus, the pioneering manufacturing industries in the outward FDI of Taiwan and South Korea were the heavy and chemical industries whose comparative advantage had been declining most rapidly in the 1960s and 1970s owing to their countries’ natural resource scarcity, the shortage of industrial space and the ensuing problems of pollution, congestion and ecological destruction. In both countries, outward FDI in labour intensive manufacturing only came into its own in a major way in the late 1980s and 1990s.

Both Taiwan and South Korea had reached the third phase of Japanese FDI in assembly-based, subcontracting dependent, mass production in foreign markets in the same set of consumer durables industries—cars, consumer electronics and semiconductors—that have been at the core of the global strategies of the large Taiwanese manufacturing firms and the South Korean large conglomerate companies (chaebols) in the 1980s and 1990s. The South Korean chaebols much like their Japanese counterparts—the keiretsus—spearheaded the large-scale import substituting FDI geared to overcome trade restrictions in the developed countries. The emergence and growth of the chaebols and the keiretsus had been fostered by their respective governments in their effort to accelerate domestic industrial development in large-scale, complex and technologically advanced industries through high industrial concentration. Indeed, a common theme in the three resource-scarce large countries of East Asia is the leading role of their governments in directing shifts in their countries’ dynamic comparative advantage (see also Aggarwal and Agmon, 1990). Towards this end, the development of indigenous skills and technological capacities was emphasized, and growth was based on knowledge-based industries (Crawford, 1987). Where South Korea and Taiwan differ is in the pace in which domestic industrial development evolved towards more advanced industries. The smaller size of its domestic market and less interventionist role of the government of Taiwan in indigenous technological development at an early stage rendered the process of industrial upgrading to proceed at a slower pace in Taiwan compared to that in South Korea. Indeed, the technological depth and competitive
prowess in which South Korea’s industry has developed is not observed in any other developing country (UN, TCMD, 1993a).

Despite the arrival of two Asian newly industrialized countries in the third evolutionary phase of Japanese FDI in manufacturing, there are important differences between Japanese MNCs on the one hand and the South Korean and Taiwanese MNCs on the other. The broader range of more technologically advanced consumer durable goods produced by Japanese *keiretsus* in their international production networks worldwide from around the mid–1970s onwards combined with their advanced marketing capabilities (high brand name recognition, product differentiation, extensive distribution channels, high advertising and promotion expenditures, etc.) contrasted with the much narrower product range, less technologically advanced and far less advanced marketing capabilities of South Korean and Taiwanese MNCs in major foreign markets in the 1980s and 1990s. Indeed, the technological strengths combined with advanced marketing capabilities of Japanese MNCs in the electrical equipment and motor vehicles industries meant that it had been in those industries in which their involvement and market shares in United States and Europe have been expanding fastest both through exports and international production (Dunning and Cantwell, 1991). By contrast, the far weaker product change and product design capabilities as well as relatively weak marketing capabilities of South Korean MNCs and Taiwanese MNCs even more so—a feature inherent in firms from countries that are late industrializers as well as the long history of their firms as OEM suppliers in the electrical equipment industry—have constrained their ability to capture substantial market shares for their brand products in the developed countries, particularly in the larger European countries as Germany and France (van Hoesel, 1997). Thus in relating stages of national development to the form of technological competence of leading indigenous firms, the type of outward FDI and its industrial course over time, MNCs from South Korea and Taiwan are at an intermediate stage of development compared to the more advanced British, German or Japanese MNCs, despite some similarity in the pattern of their MNC growth (see Table 12.3).

While Taiwanese MNCs reached the third stage in the 1970s with the major surge of FDI by large-sized Taiwanese industrial companies in the United States, a full decade earlier than the major expansion of manufacturing FDI by the Korean *chaebols* in the United States, the early penetration of Taiwanese MNCs in developed countries was premature and unsustainable. With the lack of technological capabilities (including the ability to produce products geared to higher-income markets), the inability to establish linkages rapidly with local component suppliers in the developed countries or the ability to increase local value added through the upstream production of parts, components and intermediate products in the face of increasing localization requirements in the United States and Europe, the cost competitiveness of Taiwanese MNCs in the developed countries was lost rapidly which rendered their early FDI thrusts in the developed countries in the 1970s and 1980s unprofitable and unsuccessful. This helps to explain why international production in developing countries that were the predominant host countries of Taiwanese FDI in the 1960s and 1970s once again received the bulk of Taiwanese FDI in the 1990s. By contrast, South Korean MNCs have displayed a greater ability compared to Taiwanese MNCs to sustain existing FDI in the developed countries,
as well as to implement new FDI projects in those countries, despite the fact that South Korean MNCs in developed countries emerged and grew in a major way a decade later than Taiwanese MNCs. The more rapid pace of domestic industrial upgrading in South Korea earlier mentioned, the greater success at increasing local value added in their developed host countries through backward vertical integration or local sourcing and the fact that South Korean FDI in developed countries have been led by the chaebols may explain the greater resilience of South Korean MNCs to sustain FDI in developed countries. By comparison, Taiwanese MNCs that invested in developed countries had experienced greater difficulties in achieving the objectives of higher localization in their host countries, and although Taiwanese MNCs featured among the largest companies in Taiwan these firms were not as large and diversified as the South Korean chaebols.

The success with which the chaebols and keiretsus have transplanted a great part of their production system in foreign markets through backward and forward integration has enabled both Japan and Korea through their MNCs to establish rapidly regionally integrated production networks across the world: North America, Europe, South East Asia and China. However, the regional production networks of South Korean chaebols which has developed the fastest in South East Asia and China in the 1990s differ from the regional production networks of Japanese keiretsus in North America, Europe, South East Asia and China not only in the greater sophistication and complexity of regional production networks of Japanese MNCs by comparison to those of South Korean MNCs which has enabled Japanese MNCs to progress towards global localization to a much farther extent than South Korean MNCs. The high product change capabilities of Japanese firms attained through cross-functional linkages between design and development, production, marketing and service in their regionally integrated production networks worldwide with fairly sophisticated regional division of labour and decentralized control contrast with the much weaker linkages between production, marketing and design and development functions in the regional production networks of the Korean chaebols such as SEC owing to continuing centralization of control from parent companies in Korea for the higher value added functions. Another major difference arises from the unique pyramidal and multi-layered system of subcontracting relationships between Japanese final goods assemblers and their suppliers which has essentially been closed to external economic actors, unlike those of the relationships between affiliated suppliers and final goods assemblers of the Korean chaebols which has sold components to Japanese final goods assemblers and bought parts from Japanese suppliers.

At the end of the 1990s Korean MNCs have not reached the fourth phase of Japanese multinationalization—the mechatronics-based, flexible manufacturing of highly differentiated goods involving the application of the most advanced computer technologies in design, manufacturing and engineering along with the use of more advanced technological breakthroughs associated with high-definition TV, new materials, fine chemicals and more advanced micro-chips, etc.—and their capabilities of reaching this stage will be defined by significant progress yet to be made with the development of more advanced product innovation as well as marketing capabilities.

Thus, the dynamic analysis suggests some similarities in the evolutionary course of
outward FDI from Japan, South Korea and Taiwan, particularly in manufacturing. However, the evolution of South Korean FDI over time is slower compared to that of Japanese FDI. Japanese MNCs seem to have graduated from the first two phases to the third phase within a span of about 15 years or so years (1950 to the late 1960s), while Korean MNCs have taken around 30 years (1960s to the late 1980s). Although Taiwanese MNCs may have made the same transformation within a similar span of 15 years (1960s to the mid-1970s) as Japan, these firms have yet to improve the sustainability of their FDI in consumer durables production in the developed countries. Therefore, despite the similarity in the patterns of their outward FDI, the pace of evolution in the pattern of outward FDI and the character of that evolution has differed considerably between the three countries.

By way of concluding the analysis of the emergence and evolution of MNCs from resource-scarce large countries, the last part of this chapter analyses the role of financial factors as a determinant of the growth of FDI in the five country case studies. The growth of FDI from the five resource-scarce large countries bears support to Aliber’s theory of FDI emanating from strong currency areas as a determinant of the timing of FDI and its growth (and particularly that of foreign takeovers) as well as fluctuations of outward FDI flows around a long-term trend (Aliber, 1970). The financial explanations to the growth of FDI owing to strong domestic currencies has historical antecedents in Britain in the nineteenth century, the United States in the early post-war period and Japan and Germany in the 1970s and 1980s (Cantwell, 1989a) as well as South Korea in the mid-1980s and Taiwan in the mid-1980s and 1990s. However, in the case of South Korea, the growth of outward FDI in the 1980s was less of an ‘exercise in financial power’ (Redies, 1990) compared to Japan in the 1970s and 1980s and Taiwan in the 1980s and 1990s where the financial factors in explaining FDI expansion extended beyond large financial surpluses created from net exports, the upward revaluation in the Japanese yen and New Taiwan dollar and the accumulation of the world’s largest foreign exchange reserves. In the case of Japan and Taiwan, the accumulation of large financial surpluses in those years was also created from the high domestic savings rates and the escalation in acquired wealth owing in part to the emergence particularly in Japan of a ‘bubble’ economy in which asset and land prices increased enormously. This was not the case in South Korea where there was a severe shortage of domestic savings and a large demand for foreign exchange until the late 1980s (see Kim, 1990).

The growth of Korean FDI in the 1990s has been sustained despite an inherent financial weakness in the Korean chaebols. Unlike in the 1980s when financial factors influenced the expansion of South Korean FDI owing to financial surpluses created from net exports and the upward revaluation in the Korean won between 1986 and 1990, this situation was overturned over the 1990s with the slower growth of exports and the depreciation of the Korean won. Thus, unlike the 16.8 per cent appreciation of the Korean won against the United States dollar between the end of 1986 and the end of 1990, there was a 136.6 per cent depreciation of the Korean won against the United States dollar between the end of 1990 and the end of 1997. To the extent that financial factors played a role in explaining the most rapid expansion of Korean FDI in the 1990s (the most rapid decade of South Korean MNC growth), it owed much to the role of the
*chaebols* as institutions created by the South Korean government to accelerate domestic industrial development in large-scale, complex and technologically advanced industries through high industrial concentration. The close relationships between the government and the *chaebols* was manifested in the traditional roles of the former in setting policies and in the control of the latter's access to capital to finance their growth and diversification, including through outward FDI.\(^4\) Notwithstanding the envisaged restructuring of the *chaebols* under the *segyehwa* movement between 1993 and 1997, the *chaebols* became more powerful and larger with their continued expansion into new industries and markets financed on the basis of low-interest bearing loans from their government. However, the capacity of the over-leveraged *chaebols* to service their amassed debts have been constrained by the onset of foreign competition associated with domestic market deregulation in the *segyehwa* movement and the weaker markets for computer chips in 1996 which led to domestic economic difficulties in South Korea as well as a 27 per cent deterioration in the South Korean terms of trade in the three years prior to September 1997 and associated current account deficits (World Bank, 1998). These negative factors have been exacerbated by the Asian financial crisis that started in 1997 which affected South Korea greatly and limited the capacity of the government to fulfil its traditional role as a provider of low-cost capital to the *chaebols*—the basis of the country’s past economic miracles and a contributory factor to its economic débâcles in the late 1990s (Toientino, 1997). While the full repercussions of all these compelling forces on South Korean FDI have yet to be observed and analysed fully in the future, Korean FDI outflows in the period since the financial crisis would be determined by the need to overcome the inherent financial weakness of the Korean *chaebols* through more aggressive and extensive penetration of foreign markets through outward FDI as a means to service large amounts of accumulated debt as well as the need to seek alternative sources of finance in international capital markets.

**Notes**

1 Among the exceptions were the international production activities of Lever Brothers and Courtaulds in the 1900s (Dunning and Archer, 1987). British American Tobacco’s investments in cigarette production in China to take advantage of low-cost labour is another example. With the use of labour intensive rather than capital intensive production techniques, the firm employed thousands of unskilled labourers in China to perform tasks that were already mechanized in the United States (Cochran, 1980).

2 Indeed, at the more advanced educational levels, technical and scientific instruction and inquiry remained ‘poor cousins in the family of higher learning’ in the United Kingdom in the 1900s (Murphy, 1973). This was so unlike in the United States where the need for trained managers, production and marketing specialists in the technologically advanced machinery, electrical and chemical industries had been more rapidly recognized and catered for by universities and business schools (Chandler, 1980). It was not until 1947 that the British Institute of Management was
formed, and only in the 1960s were the London and Manchester Business Schools founded (Dunning and Archer, 1987).

3 However, unlike in the case of Korea, the Japanese government was not a provider of finance to the *keiretsus* who have their own banks as part of their large organizations. By comparison, the relationship between government and business in Korea is such that the government sets the policies and traditionally controlled the *chaebols’* access to capital (Ungson *et al.*, 1997).

4 The relationships between the government and business sectors in Japan is different. In particular, the Japanese *keiretsus* have their own banks as part of their organizational structure as mentioned which provides the member companies with a reliable source of credit and finance, including in the facilitation of outward FDI. By contrast, the South Korean *chaebols* have not been allowed to own banks until the mid-1990s (Ungson *et al.*, 1997).
Part IV
Multinational corporations from the resource-scarce small countries
The emergence and evolution of multinational corporations from Switzerland

Introduction

With the origins of Swiss MNCs tracing back to around 1750, Switzerland is one of the pioneering sources of MNCs in the world economy. Switzerland has always been a home country of FDI of some consequence with a share of around 3.4 per cent of the global stock of outward FDI in 1960 and 4.3 per cent in 1998. Indeed, with an outward FDI stock of $176.7 billion in 1998 the country was the world’s seventh largest home country of FDI in that year after the United States (with a share of 24.1 per cent of the global stock of outward FDI), United Kingdom (12.1 per cent), Germany (9.5 per cent), Japan (7.2 per cent), the Netherlands (6.4 per cent), and France (5.9 per cent).¹

The early and rapid process of internationalization of Swiss firms both through exports and international production is consistent with their offensive and aggressive market expansion strategies to overcome the limited size of their domestic market—a feature shared by firms from Sweden (see Chapter 4), Singapore (see Chapter 15) and by firms from small countries more generally.² Some Swiss MNCs—the Anglo-Swiss Condensed Milk Company, Brown, Boveri & Cie. and Alusuisse for examples—typically became MNCs almost since their companies’ inception.

The choice between exports and international production tended to determined by the balance of locational advantages in the home and host countries. International production in host countries was favoured in most cases by tariffs (particularly significant in the emergence of Swiss MNCs in textiles and food products) and non-tariff trade barriers (particularly important in explaining the growth of Swiss MNCs in electrical equipment and chemicals), high transportation costs, low production costs, the necessity to overcome restrictive legislation of the home country or to establish closer ties with local customers to support sales and the need for a local presence in foreign markets.

The largest firms in Switzerland are typically MNCs, with the degree of multinationality (as measured by share of foreign employment in total employment) becoming less pronounced with diminishing firm size. Switzerland, as with Sweden and the Netherlands, is thus a prototype small country to large MNCs (Niehans, 1977). In a close resemblance to Swedish MNCs, the largest 50 firms in Switzerland account for over half of domestic and international production by Swiss-owned firms in the 1990s (Sally, 1993), although the population of Swiss MNCs also consist of many small- and medium-sized firms, particularly in the more historical periods.

The six largest Swiss MNCs—comprising the three major Basel-based chemical
companies (Ciba-Geigy, Sandoz and Hoffman-La Roche), Nestlé, Asea Brown Boveri (the result of a merger between the Swiss company, Brown Boveri & Cie. and the Swedish company, Asea) and Alusuisse—are among the world’s firms with a high degree of multinationality. Although the Basel-based chemical MNCs belong to the ten largest European pharmaceutical companies in terms of sales, such firms are considerably smaller than the more diversified German chemical companies such as Hoechst, Bayer and BASF. Despite their relatively smaller size, however, the Swiss chemical companies have maintained consistently a competitive edge in their specialization in high value-added differentiated product segments of the chemicals and pharmaceuticals industries that have high profit margins and are unaffected by cyclical price changes (Sally, 1993).

However, unlike MNCs from Sweden that account for more than half of Sweden’s exports in the 1990s (Olsson, 1993), the 35 largest Swiss manufacturing firms—including most of the larger MNCs—are not more export-oriented than the rest of the Swiss economy. This is because Swiss MNCs, apart from those in the chemicals and pharmaceuticals industries, typically regard international production and international trade as substitutes (e.g. Nestlé has no significant exports from Switzerland at all) (Niehans, 1977).

The historical excursion into the determinants of Swiss FDI and their industrial and geographical patterns in this Chapter is conducted in two time frames: the period of emergence until 1914 and the period of expansion covering the inter-war years and since the Second World War.

The emergence of Swiss MNCs and the period until 1914

The origins of Swiss FDI can be traced to the Napoleonic Wars (Masnata, 1924) and the early process of industrialization of the Swiss economy. Wavre (1988) describes two general periods in the historical development of Swiss investments in Italy: 1750 to 1850–60 and 1860–70 to 1920–30. These phases apply to the historical development of Swiss FDI more generally.

Swiss FDI in the period between 1750 and 1850–60

The earliest Swiss FDI on record were made by prominent families engaged in trade, commerce and banking as well as by small insurance companies. The Jenny family, who owned the Wienerhandlung, opened agencies in Ancona and Bologna and established an important banking and commercial business at Trieste that dealt in corn and manufactured goods. The Blumers were another leading commercial family with enterprises throughout Europe, including a trading house in Ancona. Swiss capital was also invested in a commercial company in Sicily and in a Genoese importer named Ricardi (Wavre, 1988). There was also the investment abroad in marine insurance by the Swiss Assurance Company of Livorno between 1820 and 1830 (von Niephans, 1976). The pioneering role of trading, commerce and insurance in Swiss FDI reflected Switzerland’s historical position as a trading, commercial and financial power (Bergier,
Such position was favoured by the country’s central geographical location on major European trade routes and political neutrality that allowed its firms to benefit from the maintenance of commercial contacts with each of the major European power centres even during times of conflict (France, Germany and Great Britain) (Porter, 1990).

Apart from these activities abroad in trade, commerce, banking and insurance, Swiss FDI around the turn of the nineteenth century grew rapidly in the manufacturing sector, starting with the textiles industry which was developing into an important industry of the Swiss economy and a significant source of its export earnings in the nineteenth century. Swiss investments abroad in that industry, and cotton manufacturing particularly, had begun in Italy around the late eighteenth century and became the most important industry of Swiss FDI in that country between 1750 and 1850–60 (Wavre, 1988). The cotton industry assumed greater prominence as an industry of Swiss FDI with the formation of the German customs union in 1834 which threatened the continued growth of Swiss firms in the cotton industry that exported most of its products. In response, new foreign-based factories were built just across the Swiss border in Southern Germany in a region of inhabitants linguistically and in other ways identical to the Swiss.

At the turn of the nineteenth century, FDI also emerged from the silk ribbon industry of Basel (Masnata, 1924). The investments abroad by otherwise reluctant Swiss silk companies was brought on mainly by foreign tariffs and high wages at home (Schwarzenbach, 1934). By 1904, Robert Schwarzenbach, a Swiss pioneer in silk power looms, had established silk manufacturing plants not only in Switzerland, but also in the United States, Italy, France and Germany (Wilkins, 1988b).

The concentration of the early Swiss investments in Italy in the cotton industry was promoted by the gradual disengagement of Switzerland from the French market during the early nineteenth century. The locational advantages of each of the Italian states varied greatly on account of the different customs and tariff systems, but in general there was a large concentration of Swiss enterprises in Lombardy, around Bergamo, Como and Luino and Turin. Swiss capital in this period was thus attracted primarily to the traditional heartlands of Italian textile production (Wavre, 1988).

The investments in Italy in this period were quite random and made by individual adventurers or families with established interests in the field who were looking for new outlets and avail of lower land and wage costs. Of these factors, the lower cost of the factors of production was probably the most critical locational advantage of Italy between 1750 and 1850–60 (Wavre, 1988). At the time of the discussions of a new commercial treaty between Italy and Switzerland in 1868, Swiss textile investments in Italy comprised seven cotton-spinning establishments with 108,000 spindles and another ten weaving enterprises that employed 2,050 looms. By 1870, some 23 Swiss MNCs and 25 foreign manufacturing affiliates had been traced, most of which were from the textiles industry (Schröter, 1993).

**Swiss FDI in the period between 1860–70 and 1914**

The growth of these investments since 1850–60 owed much to the new Italian tariffs of 1 March 1888 which led to the significant decline in the value of Swiss exports to Italy,
including cotton fabric. The imposition of more rigorous labour legislation in Switzerland in 1898, with the prohibition of employment of school children also forced the relocation to Italy of Swiss companies in silk spinning. This was because the costs of spinning silk were largely determined by labour costs (even though the work was performed mainly by women and children), and by the proximity to raw materials. Although there had been a weaker tendency to relocate abroad by Swiss silk weaving companies, these manufacturers also sought to overcome the higher protective tariffs in force in Italy through international production, but the capital involved was far less than in the case of silk spinning. Neither were there major Swiss investments in silk ribbon weaving or embroidery abroad, and those that did exist were located in Austria, France and Germany. There were also no significant foreign investments in other branches of the textile and clothing industry, although a Swiss straw plaiting manufacturer was established in Italy in 1854 to take advantage of cheap labour, and there was a broad range of specialist products made by Swiss firms in the region surrounding Florence (Wavre, 1988).

By 1900, there were 46 Swiss cotton manufacturers in Italy operating mills of spinning, reeling, weaving and cotton printing. Nonetheless, contact with Switzerland declined rapidly, and the Swiss concerns were acquired in haste by Italians either as a result of the formation of public companies or increased capitalization. By 1922, only 24 of the 46 Swiss cotton manufacturers that existed in 1900 survived, and of these only ten remained in Swiss hands (Masnata, 1924). The value of Swiss investment in the Italian cotton industry amounted to 150 million lire in 1922 (Beck, 1922).

In sum, several features describe the earliest Swiss investments abroad. First, the important industries of Swiss FDI were trading and commerce, banking and insurance, and textiles. There is little indication of Swiss investments in other industries, apart from that by Terra-Film AG in film distribution and Villiger in cigar making (Schröter, 1993). Swiss FDI in cotton manufacturing in particular was driven by the attainment of lower production costs abroad and to mitigate the threat to exports presented by Italian import duties and the German customs union. While Swiss FDI in silk spinning was similarly driven by lower labour costs abroad, other equally important determinants arose from the need to overcome rigorous labour legislation in Switzerland concerning the employment of school children and the proximity of raw materials. The historical Swiss FDI in the textiles sector was, therefore, spurred fundamentally by location-specific advantages that favoured foreign countries. Secondly, Swiss FDI in this period was focused towards countries that were geographically close and culturally similar to Switzerland. Although Britain was an important recipient of Swiss investments (Wavre, 1988), substantial investments by Swiss MNCs had been directed to Germany, France and Italy (Schröter, 1993) that constituted the first export markets of Switzerland. Third, the sums of Swiss capital invested abroad in the period was modest, with a majority of the investment emerging from individual adventurers or families with established interests in the textile industry or small- and medium-sized firms. Fourth, the emigration of industry associated with Swiss FDI until the 1860s and 1870s made Swiss FDI in this period consistent essentially with migratory capital. After the initial connections to Switzerland receded, the investment became independent and detached from managerial control from the home
country. Capital connections usually ceased at a later stage, together with family links (Bonnant, 1976). However, only a few examples of this phenomenon were found after the 1860s and 1870s, and therefore the years around 1870 can be traced as the period of the emergence of the modern Swiss MNC (Schröter, 1993).

Although the number of Swiss foreign manufacturing affiliates in the textiles industry doubled between 1870 and 1914 from 25 to 50 (Schröter, 1993), the importance of the industry in both domestic production in Switzerland and international production by Swiss MNCs started to decline even before the turn of the twentieth century owing to the process of domestic industrial upgrading in Switzerland and changes in fashion trends in foreign markets. As a result, the producers of the cotton industry, and later those of the silk industry, embroideries and products of straw lost core competitive advantages. From 1890 onwards, substantial FDI by such firms as Alusuisse-Lonza, von Roll, Georg Fischer and other firms belonging to the processed metal products industries began to emerge and grow in importance. Some of these were in the iron and steel industries, the bulk of which went to Germany, France and, to a lesser extent, Italy.8

Alusuisse—one of the world’s major firms in primary metals and producer of aluminium foil and one of Switzerland’s largest manufacturing firms in terms of sales—is a prototype of a resource-oriented MNC. That the company is an MNC partly arises from comparative advantages which favour different countries for different factors and partly from the small and imperfect markets for the intermediate inputs at the various stages of production, both of which would render a non-integrated firm vulnerable to pressures from monopolistic suppliers or customers and to the risk of disruption in the flow of raw materials and products (Niehans, 1977). Thus the firm by necessity became an MNC from its inception, and therefore the pattern of firm growth described in the product cycle model does not apply.

The location of the international production facilities of Alusuisse was determined fundamentally by four major factors: first, abundant sources of bauxite as the primary raw material; second, low-cost electric power for the reduction of alumina to aluminum; third, the presence of markets for products; and fourth, management expertise for the planning and scheduling of complex international production and transportation operations. Given that the first three locational factors favoured a location in the countries of Europe, Alusuisse became a fully internationally integrated company with operations throughout Europe before the Second World War, all of which were under the centralized control of its headquarters in Switzerland.9

The loss of the company’s bauxite base in Eastern Europe in the aftermath of the Second World War and the search for new sources of primary raw material in Sierra Leone, Guinea, Australia and Central America led to the transformation of the company from a regional to a worldwide enterprise. In addition to diversifying its bauxite base, the firm accomplished its motive of product diversification by acquiring the Swiss firm, Lonza Ltd, in the 1970s. This enabled Alusuisse to become an important producer of organic and inorganic chemicals, plastics and agro-chemicals.

While the firm continued to grow through product and geographical diversification including in other mining ventures, the firm also became an important provider of commercial advisory services which derived from its assembly of a large and varied
engineering staff that served its extensive prospective, planning and engineering operations worldwide. The firm’s growing role as a provider of services has, however, somewhat lessened the importance of FDI as a modality for international expansion (Niehans, 1977).

Apart from MNCs in the processed metal industries, there was also the emergence and development of firms and industries and eventually MNCs in machine building and electro-technics allied closely with the strengths of Swiss firms in processed metal products and textiles. The simultaneous development of both the textiles and textile machine-building industries was attributed to the pioneering roles of Honegger in the first half of the nineteenth century, and Rieter 50 years later. Although Rieter became an MNC only after the Second World War, other firms, such as Sastig with its FDI in the marketing of both embroidery and embroidery machines, grew to become the biggest Swiss MNCs in terms of share capital in 1914 (Schröter, 1993). Similar to the case in Sweden, the Swiss engineering and machine-building industries—apart perhaps from the textile machinery manufacturers—had always been directed abroad both in terms of sales and the location of its main centres of production owing to their strategy to penetrate foreign markets in durable goods. Virtually every leading Swiss durable goods producer engaged in international production in the late nineteenth and early twentieth century. This included the Dubied Company which opened a foreign subsidiary in Milan, the Sulzer Company which similarly opened a new factory at Milan in 1916, Esche-Wyss which entered into partnership with an existing company at Schio to form the Pretto-Eschwyss Company, and the Gardy Company which established a business in Turin. This list is far from exhaustive, but there is no comprehensive record of these investments (Wavre, 1988).

In the electrical and hydroelectrical industry, Swiss FDI and foreign portfolio investments were closely inter-related, and largely accounted for by holding companies developed in the 1890s. The foreign subsidiaries of these holding companies were particularly prominent in the hydroelectric industry, with no comparable concentration in other industries (Wavre, 1988).

The history of Brown, Boveri & Cie. (BBC) of Baden—which eventually developed into one of the world’s largest producers of high-performance electrical machines for generation and transformation—included creating a network of foreign subsidiaries in Mannheim in 1898, in Paris in 1902, and in Milan in 1904 where it acquired the Tecnomasio Italiano Brown-Boveri (Wavre, 1988). Having established its German subsidiary within two years of its foundation, the BBC became a MNC almost from its inception (Niehans, 1977). Its strategy of expanding abroad through international production was adopted by Motor A.G. für angewandte Elektricität, a combined engineering and financial consortium that depended entirely on the BBC and later became known as the Motor-Columbus AG (Wavre, 1988). As with the Swedish firms in mechanical engineering and transportation equipment, the principal motives for international production by Swiss firms in mechanical and electrical equipment proceeded from trade barriers associated with the buying practices of major customer groups abroad which included public authorities, utility companies and large private firms for which large pieces of equipment were typically purpose built. These buyers
often gave preference to domestic suppliers, sometimes being compelled to do so by national regulations. Compared to these non-tariff trade barriers, tariff barriers had played a secondary role. Other relevant motives for MNC expansion were the high transportation costs for heavy equipment, the regional or national differences in technical standards in certain fields, and the need to maintain a sales and service organization in each market area. These facilities were complemented in many instances by local production, particularly of relatively standardized items (Niehans, 1977).

Italy became favoured increasingly as a country in which to establish new Swiss-owned factories abroad in the engineering and electrical industries owing to the situation in Germany which limited the possibility of further expansion of Swiss investments in that country (Masnata, 1924). However, no longer were Swiss investments attracted to the traditional heartlands of Italian textile production but to the three geographical poles consisting of Naples, Upper Italy (Anza, Maira, Cairasca, Orobia) and Milan, and the Genoese Riviera and Liguria. These regions became the strongest foreign footholds for Swiss investors and entrepreneurs, with much of the capital raised from Switzerland (Himmel, 1922). In this relatively circumscribed geographical area within Italy, Swiss FDI predominated in the mechanical engineering and electrical equipment industries in their objective to penetrate and exploit the rapidly growing Italian market.

Despite the importance of Swiss FDI in the mechanical engineering and electrical equipment industries between 1860–70 and 1920–30, these were not the only industries in which Swiss FDI emerged historically. The industrial clusters of processed food and chemicals were also of considerable importance for Swiss firms which began to expand abroad at the turn of the twentieth century. The investments abroad in both these industries were dominated by only a handful of MNCs who sought to internationalize rapidly their sales, production and R&D activities (Schröter, 1993). One of the first Swiss industries to internationalize production in the food products sector was milk products, accounted largely for by the Anglo-Swiss Condensed Milk Company which became an MNC only a few years after the company’s inception with its establishment of four plants abroad in 1880 (three in England and one in Germany) (Heer, 1966). The rapid expansion into international production was owing to the high sugar content of condensed milk which rendered the product vulnerable to high import duties in an increasing number of countries (Niehans, 1977).

The international production of baby food products by the Henri Nestlé Company also had a long vintage. The growth of this company followed the product cycle pattern in its initial emphasis on the home market, the development of the export business at a later stage, and then finally growth through international production. In the first few decades of the firm’s history, the rationale behind the expansion of the MNC activities arose from three main factors: to overcome rising average costs with increasing plant size, to overcome tariff protection in export markets, and to guarantee a steady supply at the retail level of essential consumer commodities by having a local presence. By 1900, factories had already been established in Christiania in Norway, Edlitz in Austria, Tutbury in England and Fulton in New York (Wilkins, 1988b).

Thus, at the merger of the Henri Nestlé Company and the Anglo-Swiss Condensed Milk Company in 1905 to form Nestlé and Anglo-Swiss, both firms had long been
The corporate growth of Nestlé had two distinct but closely related elements (Niehans, 1977). The first component involved geographical diversification. In a theme resonant of the product cycle model, the international businesses of the Henri Nestlé Company spanned an increasing number of countries, progressing from importing agents to the establishment of branch offices and production subsidiaries in more than 50 countries as local markets in foreign countries expanded. As this process advanced, the share of aggregate exports in the firm’s total sales declined, providing evidence of the strategy of Swiss MNCs to regard exports and international production as substitutes. The second component of corporate growth involved horizontal diversification as the economies of scope warranted their extension to a wider range of food products. This dictated the 1905 merger of the two companies which enabled milk products to become the core of the merged company’s business until around the First World War. The company branched out to the chocolate industry in 1911 by taking a direct influence in the Swiss chocolate-producing MNCs—Peter Callier, Kohler and Chocolats Suisses SA (Heer, 1966). With the addition of instant coffee in the 1930s, the main business of the company became the processing of three agricultural commodities comprising milk, cocoa and coffee into manufactured food products protected by trademarks and patents, and the marketing of these products to the retail trade. An aggressive strategy in the postwar years led to a spate of mergers and acquisitions which extended the breadth of the company’s product range sold through retail food stores to include soups, frozen foods, canned goods, bakery products, mineral water and cosmetics. By contrast, the company neither engaged in agricultural production nor retailing, hence the corporate strategy did not encompass vertical integration. The horizontal and geographical diversification strategies of the company in combination enabled Nestlé to become the largest Swiss MNC since the First World War (Schröter, 1993) and one of the world’s largest food processing companies (Niehans, 1977).

The chocolate industry began to expand rapidly in Switzerland at the very end of the nineteenth century, and the development of foreign markets involved substantial Swiss FDI. Some of the notable foreign investments in this industry apart from that of Nestlé was that of the Tobler Company which purchased the Michele Talmone Chocolate Company of Turin in 1905, and the establishment of the headquarters of the Italo-Swiss Chocolate Manufacturers’ Union in Varese in 1921, with a capital of 5 million lire and a management board that included three Swiss citizens (Wavre, 1988).

Swiss MNCs in the jam and preserves industries of Switzerland also began to take off at the start of the nineteenth century, propelled by the narrowness of the Swiss market and the need by Swiss producers to search for foreign markets, including the establishment of factories abroad. The Société Générale de Conserves Alimentaires at Saxon, for example, was a holding company that owned until 1918 the Cirio Società Generale di Conserve Alimentari of Naples, with factories in Mondragone, Paestum and Taranto. This was a short-lived investment as its majority shareholdings were sold to
indigenous firms in a decision by the company’s board in that year (Masnata, 1924).

Swiss FDI in the chemicals industry was also gaining significance rapidly around the early twentieth century. As an example, the Hoffman-La Roche pharmaceuticals company opened a subsidiary in Milan around 1910 (Wavre, 1988). The bulk of Swiss FDI in this industry was, however, attracted mainly to France, Germany, Russia and the United States in an attempt to overcome the small size of the domestic market, reduce risks and to overcome the tariff and non-tariff protection accorded to pharmaceuticals and agro-chemicals in foreign countries. The non-tariff barriers inherent in the widely divergent national drug laws in different countries had always been the main obstacle to the export expansion of chemicals and pharmaceuticals companies generally, and the Swiss companies were no exception. However, despite their high degree of multinationality, there remains considerable concentration in Switzerland (and in Basel in particular) of high-value research and production of specialty chemicals and pharmaceuticals by the major Swiss chemical MNCs such as Ciba-Geigy, Sandoz and Hoffman-la Roche as part of a corporate strategy reinforced since the 1970s. Thus, unlike the other manufacturing industries in Switzerland, the chemicals industry remains in the 1990s a major contributor of Swiss industrial GDP with a share of more than 12 per cent and is responsible for more than 20 per cent of national industrial exports. Indeed, with no less than 85 per cent of domestic production in the industry that is exported, the industry continues to have a sizeable trade surplus (Sally, 1993).

The corporate strategies of the major Basel chemical firms are marked by a high degree of forward integration from basic research to the final product and, in some cases, also backward integration to eliminate the inherent risks associated with obtaining raw materials and intermediate products through arms-length transactions. This would typically involve the concentration in the home country of parts of the value added chain from research to the production of semi-finished products which are, in turn, exported to a network of foreign subsidiaries through intra-firm trade for the final stages of production, packaging and marketing. The marketing part of the value added chain is typically localized in each host country since these need to be differentiated according to local needs and languages, and to respond to host government policy or consumer preferences for drugs with a high domestic value added (Niehans, 1977). Indeed, some two-thirds of exports of the three Basel chemical MNCs had been intra-firm to foreign subsidiaries. However, the Basel-focused strategy of the Swiss chemical MNCs has had to be reconsidered since the late 1980s owing to the limited possibilities for further expansion in the increasingly crowded Basel region, the unfavourable domestic political and regulatory climates, and the perceived need to decentralize high-value production closer to its major markets in the European Union, North America and Japan. This has resulted in the faster pace of growth of their capital and research investments in foreign markets in recent years by comparison to that in Switzerland, including the trimming down of some previously domestically based activities (Sally, 1993).

Other less significant industries of Swiss FDI were paper making and graphics, mostly concentrated in Italy, and in gas, transportation and the timber industry. Swiss FDI in the hotels industry was perhaps more considerable, reaching some 16.5 million Swiss francs in 1905 and 19.9 million Swiss francs in 1913 (Himmel, 1922). Nearly all the
Swiss hotel companies that expanded abroad were based in Lucerne, among which was the Italienisch-schweiz Hotelgesellschaft (Wavre, 1988). By 1914, there were five Swiss hotel companies that operated hotels in Italy, France and North Africa (Wilkins, 1988b).

By 1913, the significant recipients of Swiss FDI were France, North America (principally the USA), Germany and Italy (Wilkins, 1988b). Thus, apart from the United States, Swiss investors continued to focus on their closest neighbours for investment opportunities. In particular, the considerable Swiss investments in Italy in the 1870s and 1880s was facilitated by improved communications and transport (the San Gothard line opened in 1882), and encouraged by the expectations of an expanding market, the lower costs of production and the introduction of tariff protection (Wavre, 1988). Indeed, Swiss FDI was driven by a diverse range of factors since 1860–70. Thus, although location factors such as tariffs and lower production costs in foreign countries as well as restrictive employment legislation in Switzerland provided the major thrust to the emergence of Swiss FDI between 1750 and 1850–60, the opportunities offered by expanding foreign markets since 1850–60 gradually drew Swiss financiers and industrialists to become MNCs. Nevertheless, factors related to the factor market (29 per cent) were still relatively more important in explaining Swiss FDI before 1914, by comparison to factors related to the sales market (27 per cent) and government intervention such as tariffs mainly and patent legislation to a lesser degree, preferences for local production for state orders, etc. (25 per cent) or strategic considerations, i.e. diversification of location of production and presence in certain national markets (18 per cent) (Schröter, 1993). Regardless of the factors involved in the emergence and growth of Swiss FDI, the size of investments abroad by Swiss businesses between 1898 and 1919 was greater than that in Switzerland (Himmel, 1922).

The expansion of Swiss FDI since 1914

The First World War gave a great boost to Swiss FDI even though Switzerland faced considerable problems in obtaining enough food, fuel and raw materials. With the politically neutral status of Switzerland, considerable export earnings were derived from trading with both countries on both sides of the political divide. As in the Netherlands but unlike in Sweden, many Swiss firms increased both their share capital and FDI, mainly in neutral and (anti-German) entente states (Schröter, 1993).

Although Swiss FDI did not grow as rapidly during the inter-war period as before the First World War owing to the adoption of an overall cautious attitude of Swiss firms, the period described the sharp decline of FDI in the textile industry, while existing MNCs in the chemical, the electro-technical and food industries further increased the levels of their FDI and new Swiss firms ventured abroad and became MNCs. The performance of Swiss FDI in the period around the Second World War was significantly different from that in the First World War. As Switzerland became detached from the world market, there were limited opportunities for the expansion of trade and FDI with the continuing overall cautious attitude of Swiss firms which carried on well into the 1960s. Significant levels of Swiss FDI emerged only since the 1960s and in both the same set of industries as
before the Second World War (with the exception of the textiles industry), as well as from new ones. Indeed, the period since the Second World War was an era of emergence of many new Swiss MNCs as shown by the empirical survey conducted by Bürgenmeier (1986). In that survey, some 17 per cent of the Swiss firms investing abroad were organized internationally from their foundations in the nineteenth century, while some 59 per cent of firms diversified internationally after the Second World War in a period of declining tariff barriers in general and the formation of the Single European Market. The increase in Swiss FDI associated with the emergence of more Swiss MNCs since the Second World War may thus be regarded as a strategy by Swiss firms to transcend non-tariff barriers through FDI (Bürgenmeier, 1986).

Swiss FDI after the Second World War was also regarded as a means of survival by Swiss firms in world markets (Borner and Wehrle, 1984). In this context, considerations regarding exports or international production as alternative modes of serving foreign markets had become increasingly rare, with greater emphasis laid instead on the choice between international production or the loss of business opportunities in foreign markets. The increased importance of outward FDI had emerged not only from a defensive viewpoint, i.e. the economic necessity to invest abroad brought about by the small size of the Swiss market, rising production costs in Switzerland and the need to engage in FDI to capture world markets, but also from more aggressive reasons, i.e. the growing ability of Swiss firms to apply their core competencies and become successful MNCs in foreign markets, and to gain access to complementary foreign-based technologies.

However, other modalities of internationalization apart from FDI—to include licensing, sub-contracting, consulting, industrial cooperation (co-production), joint ventures and group investment—have also been used either as the main means of internationalization by small- and medium-sized firms or as a direct trade-off to international production with 100 per cent or majority ownership by larger-sized firms. These alternative forms of international investment have been shown to be particularly suitable to some Swiss machinery firms as well as firms in certain segments of the chemical and pharmaceutical industries, but not to firms in the electronics industry (Borner, 1986).

The decades since the Second World War also described the increasing importance of the services sector to both the Swiss economy and to Swiss MNCs. By shifting an increasing part of their manufacturing operations to foreign subsidiaries and the progressive concentration of their domestic operations on services such as marketing, technology, management and finance, Swiss MNCs have contributed significantly to the general shift of the Swiss economy from manufacturing to services (Niehans, 1977). The importance of the services sector to Swiss MNCs has also been manifested increasingly in more recent decades in the expansion of firms in the banking, finance and insurance industries—an embodiment of Switzerland’s historical position as a financial power (Bergier, 1968), as previously stated. However, despite the substantial foreign businesses of firms in these industries, FDI had not been the common method of internationalization in these industries before the 1960s, with the exception of those in the insurance industry. Swiss insurance and reinsurance companies have always had significant investments abroad as seen in the cases of the Swiss Assurance Company of
Livorno that became a MNC between 1820 and 1830 as previously mentioned and Swiss Reinsurance.

Swiss Reinsurance—one of the world’s largest professional reinsurers—has always been a highly international company to implement efficient risk and portfolio management essential to the reinsurance business. The company established its first branch office in New York in 1910 to achieve marketing advantages in light of government regulation and accounting benefits, and later in the United Kingdom (in recognition of its traditional position as an insurance centre), Canada (for marketing and fiscal considerations), Australia (fiscal considerations) and South Africa (originally planned as a potential emergency headquarters in case of war) (Niehans, 1977).

By contrast, Swiss banks had less than one dozen branches abroad in the period until the Second World War. This was because much of the international banking before the developments of the Euromarkets in the 1960s could be conducted without extensive multinational branching (Cassis, 1990). As a result of the need since the 1960s for a presence by commercial banks in at least the major financial centres of the world, Swiss banks have increased the number of their foreign branches, including a series of large acquisitions in the financial sectors of the United Kingdom, the United States and Germany in the 1980s. This is a reflection of the development of the Euromarkets since the 1960s, the moves of competitors towards global banking and the creation of the Single European Market (Schröter, 1993). As a result of the expansion of Swiss firms in the banking, finance, insurance and other services industries, the share of the services sector in the stock of recent Swiss FDI had increased steadily from a share of more than 30 per cent in 1986, some 32 per cent in 1987 (Bürchenmeier, 1991), 38 per cent in 1988 and 56 per cent in 1997 (UNCTAD, 1999).

The 1980s and 1990s were thus decades of continued growth and expansion of Swiss FDI of which at least half continues to be directed to countries of the European Union that have always played a traditional key role in Swiss international economic relations. In a continuing historical trend, the largest 50 MNCs produced more than twice as much abroad than in Switzerland in 1980, employing a workforce of 535,270 abroad and some 233,120 in Switzerland (Brauchlin, 1986). By 1989, however, the 50 largest MNCs doubled their workforce abroad to 1,167,845 while the corresponding number of workforce in Switzerland remained essentially at the same level (Schröter, 1993). Indeed, Switzerland continues to rank as one of countries with a high degree of multinationality when also measured by the level of its outward FDI per capita.

Swiss FDI in more recent decades have been determined essentially by the same set of factors that encouraged Swiss FDI historically. The three motives related to state intervention abroad, foreign and national conditions of the labour market, and economic policy in Switzerland are recurrent themes (Bürchenmeier, 1986). The increase in the levels of Swiss FDI—whether through the continuing expansion of existing MNCs or the emergence of new firms as MNCs—derive from the need to search for new markets (weighted frequency of 47 per cent), to benefit from from lower production costs abroad (32 per cent) and fiscal advantages (21 per cent) (Nankobogo, 1989).
Conclusion

This chapter analysed the history of Swiss MNCs since around 1750 until the present time. The earliest Swiss investments abroad had several distinctive features. First, the important industries of Swiss FDI were trading and commerce, banking and insurance, and textiles. Swiss FDI in cotton manufacturing in particular was driven by the attainment of lower production costs abroad and to mitigate the threat to exports presented by Italian import duties and the German customs union. While Swiss FDI in silk spinning was similarly driven by lower labour costs abroad, other equally important determinants arose from the need to overcome rigorous labour legislation in Switzerland concerning the employment of school children and the proximity of raw materials. The historical Swiss FDI in the textiles sector was, therefore, spurred fundamentally by location-specific advantages that favoured foreign countries. Secondly, Swiss FDI in this period was focused towards countries that were geographically close and culturally similar to Switzerland. Although Britain was an important recipient of Swiss investments (Wavre, 1988), substantial investments by Swiss MNCs had been directed to Germany, France and Italy (Schröter, 1993) that constituted the first export markets of Switzerland. Third, the sums of Swiss capital invested abroad in the period was modest, with a majority of the investment emerging from individual adventurers or families with established interests in the textile industry or small- and medium-sized firms. Fourth, the emigration of industry associated with Swiss FDI until the 1860s and 1870s made Swiss FDI in this period consistent essentially with migratory capital. After the initial connections to Switzerland receded, the investment became independent and detached from managerial control from the home country. Capital connections usually ceased at a later stage, together with family links (Bonna nt, 1976). However, only a few examples of FDI in the form of migratory capital was found after the 1860s and 1870s, and therefore the years around 1870 can be traced as the period of the emergence of the modern Swiss MNC (Schröter, 1993). It was also the period in which Swiss FDI emerged in a number of other industries to include processed metal products, machine building and electro-technics, processed foods and chemicals as well as hotels.

The importance of the textiles industry in both domestic production in Switzerland and international production by Swiss MNCs started to decline even before the turn of the twentieth century owing to the process of domestic industrial upgrading in Switzerland and changes in fashion trends in foreign markets. From 1890 onwards, substantial FDI by such firms as Alusuisse-Lonza, von Roll, Georg Fischer and other firms belonging to the processed metal products industries began to emerge and grow in importance. Some of these were in the iron and steel industries, the bulk of which went to Germany, France and, to a lesser extent, Italy. Apart from MNCs in the processed metal industries, there was also the emergence and development of firms and industries and eventually MNCs in machine building and electro-technics allied closely with the strengths of Swiss firms in processed metal products and textiles. Similar to the case in Sweden, the Swiss engineering and machine-building industries—apart perhaps from the textile machinery
manufacturers—had always been directed abroad both in terms of sales and the location of its main centres of production owing to their strategy to penetrate foreign markets in durable goods. Virtually every leading Swiss durable goods producer engaged in international production in the late nineteenth and early twentieth century. In the electrical and hydroelectrical industry, on the other hand, Swiss FDI and foreign portfolio investments were closely inter-related, and largely accounted for by holding companies developed in the 1890s.

As with the Swedish firms in mechanical engineering and transportation equipment, the principal motives for international production by Swiss firms in mechanical and electrical equipment proceeded from trade barriers associated with the buying practices of major customer groups abroad to include public authorities, utility companies and large private firms for which large pieces of equipment were typically purpose built. These buyers often gave preference to domestic suppliers, sometimes being compelled to do so by national regulations. Compared to these non-tariff trade barriers, tariff barriers had played a secondary role. Other relevant motives for MNC expansion were the high transportation costs for heavy equipment, the regional or national differences in technical standards in certain fields, and the need to maintain a sales and service organization in each market area. These facilities were complemented in many instances by local production, particularly of relatively standardized items (Niehans, 1977). Italy became favoured increasingly as a country in which to establish new Swiss-owned factories abroad in the engineering and electrical industries owing to the situation in Germany which limited the possibility of further expansion of Swiss investments in that country (Masnata, 1924).

Other industries in which Swiss FDI emerged historically were processed foods and chemicals, industries which were of considerable importance for Swiss firms that began to expand abroad at the turn of the twentieth century. The investments abroad in both these industries were dominated by only a handful of MNCs who sought to internationalize rapidly their sales, production and R&D activities (Schröter, 1993). While the need to search for foreign markets as a means of overcoming the limited size of the domestic market was a common objective behind the international production of Swiss food companies, the high import duties in an increasing number of countries was also an important contributory factor (the case with the Anglo-Swiss Condensed Milk Company and the Henri Nestlé Company), in addition to the need to overcome rising average costs with increasing plant size and to guarantee a steady supply at the retail level of essential consumer commodities by having a local presence (the Henri Nestlé Company).

Swiss FDI in the chemicals industry was also gaining significance rapidly around the early twentieth century. The bulk of Swiss FDI in this industry was attracted mainly to France, Germany, Russia and the United States in an attempt to overcome the small size of the domestic market, reduce risks and to overcome the tariffs and, perhaps more importantly, non-tariff protection accorded to pharmaceuticals and agro-chemicals in foreign countries. However, despite their high degree of multinationality, there remains considerable concentration in Switzerland (and in Basel in particular) of high-value research and production of specialty chemicals and pharmaceuticals by the major Swiss
chemical MNCs such as Ciba-Geigy, Sandoz and Hoffman-La Roche as part of a corporate strategy reinforced since the 1970s. Other less significant industries of Swiss FDI were paper making and graphics, mostly concentrated in Italy, and the gas, transportation and the timber industry. Swiss FDI in the hotels industry was perhaps more considerable.

By 1913, the significant recipients of Swiss FDI were France, North America (principally the USA), Germany and Italy (Wilkins, 1988b). Thus, apart from the United States, Swiss investors continued to focus on their closest neighbours for investment opportunities. In particular, the considerable Swiss investments in Italy in the 1870s and 1880s were facilitated by improved communications and transport, and encouraged by the expectations of an expanding market, the lower costs of production and the introduction of tariff protection (Wavre, 1988). Although location factors such as tariffs and lower production costs in foreign countries as well as restrictive employment legislation in Switzerland provided the major thrust to the emergence of Swiss FDI in the textiles industry between 1750 and 1850–60, the opportunities offered by expanding foreign markets in addition to tariff and non-tariff trade barriers gradually drew Swiss financiers and industrialists to become MNCs since 1850–60. Nevertheless, factors related to the factor market were still relatively more important in explaining Swiss FDI before 1914, by comparison to factors related to the sales market, government intervention (such as tariffs mainly and to a minor degree patent legislation, preferences for local production for state orders, etc.) or strategic considerations, i.e. diversification of location of production and presence in certain national markets (Schröter, 1993).

Although Swiss FDI did not grow as rapidly during the inter-war period as before the First World War owing to the adoption of an overall cautious attitude of Swiss firms, the period described the sharp decline of FDI in the textile industry, while existing MNCs in the chemical, the electro-technical and food industries further increased the levels of their FDI and new Swiss firms ventured abroad and became MNCs. The period since the Second World War was an era of emergence of many new Swiss MNCs in manufacturing as well as in services in light of the increasing dominant role of the services sector to both the Swiss economy and to Swiss MNCs. Indeed, Swiss MNCs have contributed significantly to the general shift of the Swiss economy from manufacturing to services (Niehans, 1977). The importance of the services sector to Swiss MNCs has been manifested increasingly in more recent decades in the expansion of firms in the banking, finance and insurance industries—an embodiment of Switzerland’s historical position as a financial power (Bergier, 1968).

Swiss FDI in more recent decades have been determined essentially by the same set of factors that encouraged Swiss FDI historically. The three motives related to state intervention abroad, foreign and national conditions of the labour market, and economic policy in Switzerland are recurrent themes (Bürgenmeier, 1986). The increase in the levels of Swiss FDI—whether through the continuing expansion of existing MNCs or the emergence of new firms as MNCs—derive from the need to search for new markets, to benefit from lower production costs abroad and fiscal advantages (Nankobogo, 1989).

By way of comparison, the basis of the sustained competitiveness of Swiss firms and MNCs are very similar to those of Germany (see Chapter 8) and Sweden (see Chapter 4).
Apart from the silk industry which at the time of its peak development before the First World War concentrated on products of medium quality and therefore not in direct competition with the famous French industry of Lyon, Swiss products like those of Germany and Sweden have generally been focused on quality or based on extensive R&D and technical expertise (Schröter, 1993). A major part of the explanation lies in the low demand in the Swiss economy for lower-quality, mass-produced consumer goods (Porter, 1990). This has driven Switzerland to have the highest intensity of industrial R&D in the OECD, with Swiss MNCs dominating R&D expenditures: the total R&D budgets of the three major Basel chemical companies and Asea Brown Boveri represent more than 80 per cent of gross R&D expenditures in Switzerland (Sally, 1993).

Indeed, both Switzerland and Germany have developed analogous strengths in chemicals, machinery, machine tools, precision mechanical goods, optical products and textiles, with Germany tending to have a broader product range compared to the limited specialization of Switzerland in the most sophisticated segments of industry (Porter, 1990). However, while the standards for general and technical education and the well-developed apprenticeship system as a pool for human resource development are similar in both Switzerland and Germany, the relations between banks and industry are closer, industrial relations are more stable and investment policies are geared more towards the longer term in the former country than in the latter. In this respect, Sweden seems a closer comparison. In contrast to the German case, the reason for the large amounts and the early forays into international production by Swiss and Swedish MNCs was evidently related to the small size of their domestic markets, particularly so in the case of Switzerland. The land-locked geography of Switzerland and its multi-cultural and multi-lingual population have also enhanced both its international orientation and its successful operations in foreign markets.

However, unlike the Swedish firms generally, Swiss firms in general and the major Basel chemical MNCs in particular display a greater degree of embeddedness to their home country. The sustained concentration of high value added research and production in Switzerland indicated the continuing reliance by Swiss firms on their home base to maintain and upgrade their competitive advantages. Such firms depended on the educational and research institutes of the country as mentioned for vocational training and qualified personnel and in the provision of the R&D infrastructure for the advancement of technological innovation. There was also the tight links between the major Basel chemical companies and their constellation of small suppliers dependent overwhelmingly on the home market. The favourable conditions enjoyed in the home country by these firms explain their strong embeddedness to their country and region—a feature which will take some degree of difficulty and time to replicate abroad even in the bordering areas surrounding Basel in the territories of France and Germany (Sally, 1993).

The analysis of the history of Swiss MNCs leads one to support the view advanced by Schröter (1993) that Swiss FDI possesses three distinctive features: continuity, scale and scope. The continuity and scale features stem from its long history of FDI since 1750, and to an extent that has enabled Switzerland to consistently be one of countries of the world with a high degree of multinational business. The scope of Swiss FDI, on the other hand, is seen in the extraordinarily wide breadth of advanced manufacturing and services
industries in which Switzerland spawned MNC activities—a remarkable feat for a nation of a small size and population that had not been observed in other small countries apart perhaps from Singapore (see Chapter 15). This is a reflection of the diverse clusters of industries in which Switzerland had become highly competitive: health care-related industries (including pharmaceuticals), textiles, speciality chemicals, processed food products, processed metal products (including machine tools) and general business services (including trading, banking, finance, insurance, management consultancy, etc.) (Porter, 1990).

Notes

1 Based on data contained in UNCTAD (1999).
2 Indeed, apart from Swiss MNCs having early origins, Switzerland also ranked first and second on the world’s list of national exports per capita in 1860 and 1913, respectively (Bairoch, 1973).
3 The textiles industry accounted for 70 per cent of the country’s total exports around 1840 and 50 per cent of industrial value added as late as 1880 (Wavre, 1988).
4 Examples of Swiss investment in the textiles industry in Italy in this period included the printed textile factory that J. Speich founded at Cornigliano in 1789 which survived until about 1850 (Masnata, 1924). There was also the cotton industry founded in the Kingdom of Naples at Piedimonete d’Alife by J.J. Egg of Zürich which led to the import ban imposed by the Kingdom of Naples on 17 September 1816 on certain types of cotton fabrics (balazores) with the aim of protecting the industry established by J.J. Egg. This company had 500 looms in operation in 1834 and employed 1,300 workers (Clough, 1964). J.R. Glarner founded a calico factory at Sarno in the 1830s, while K. Blumer also opened a factory at Messina. Indeed, cotton plants owned by Swiss and directed by Swiss technicians proliferated in Italy during this period and grew rapidly (Wavre, 1988).
5 The Swiss Federal Customs Department reported in 1888 that as a result of the new tariff regime in Italy, the value of Swiss exports declined from 65 to 51 million Swiss francs, that is by 21 per cent. Three-quarters of the decline in export value was explained by the new increased duties in force in Italy. In particular, it led to a loss of 3.4 million Swiss francs of export revenue on cotton fabric and a further loss of 3.7 million Swiss francs of export revenue on cheese (Wavre, 1988).
6 This factor alone forced one Ticinese spinning works to transfer production to Italy in 1898. A number of Zürich silk companies opened Italian subsidiaries in 1907 (Masnata, 1924).
7 This pattern of Swiss FDI being driven by medium-sized firms continued throughout the inter-war period, and even after the Second World War (Schröter, 1993).
8 A Genevan company opened an ironworks plant in Turin in 1920, and there is reference to two other Swiss iron and steel foundries in Turin (Wavre, 1988).
9 On the basis of central direction from its Swiss headquarters, bauxite extracted in France, Hungary, Rumania and Yugoslavia was shipped to the sites of cheap coal in
Germany for the extraction of alumina which was then reduced to aluminium by hydroelectric power in Switzerland, Germany and Italy. The final products were sold mainly in the European market (Niehans, 1977).

10 It is sometimes a contestable point whether or not the machinery for embroideries used by Sastig was entirely Swiss in origin. This is because although the invention of the machinery was mainly Swiss, the machinery was built in Saxony, Germany, on the basis of orders received from Sastig’s plants in Switzerland and the United States. As in the case of the chemicals industry, the home market for the Swiss machine-building industry included Germany. It is partly for these reasons that Switzerland is regarded as a special case of Porter’s home nation-based theory (Borner et al., 1991).

11 After the decline in importance of the textiles industry in Swiss FDI, the international orientation of firms engaged in textile machinery production was confined mainly to exports until the 1960s. It was only in the decades since the 1960s that firms producing special machinery for the textiles industry emerged as MNCs (Schröter, 1993).

12 Although the Motor company operated exclusively in Switzerland until the early 1900s where it played a leading role in the electrical equipment industry and accounted for most of the 100 million Swiss francs invested in the industry (Himmel, 1922), it rapidly adopted a strategy of foreign investment. It founded in 1903 the Società per la Forze Motrici dell’Anza (in addition to the acquisition by the BBC of the Tecnomasio Italiano Brown-Boveri in Milan in 1903–4). It acquired an interest in the Dynamo Società per la Imprese Elettriche in Milan in 1907, and took over the Forze Idrauliche della Maira concern in 1911. Through a merger, Motor’s holding in Forze Idrauliche della Maira transformed to major shareholdings in the Società Riviera di Ponente, Ing R. Negri, Genoa. With the investments of other Swiss companies and private investors that also held shares in this company, the total Swiss investment in the Società Riviera di Ponente, Ing R. Negri amounted to 17 million lire (or a share of 15.5 per cent) (Himmel, 1922). In 1914 Motor also acquired an interest in the Italo-Swiss Finance Company along with three other Swiss companies—Electrobank, Société France-Suisse pour l’Energie Electrique and Société Financière Italo-Suisse. The four companies also held important shares in a number of other Italian electrical companies (Wavre, 1988).

13 As a consequence, the lowering of tariffs in the postwar period and the formation of the European Common Market affected BBC less than other companies, except for mass-produced items (Niehans, 1977).

14 The decreasing returns to scale with increasing plant size arose from the rising cost of domestic milk supplies which could not keep pace with the growing foreign demand.

15 In a strategic retreat, however, the Henri Nestlé Company sold all its American plants to a competitor firm, Borden, in 1902 (Wilkins, 1989).

16 The need for production decentralization was also balanced by efficiency considerations which dictate the centralization within a single corporate entity of the following activities: R&D, trademarks, production and shipping schedules and
control of inventories, and the manufacture of machinery and equipment (previously). These activities were controlled from the company’s headquarters in Vevey. The purchases of raw materials and production, however, were decentralized, with the subsidiaries playing an important role in the development of local agriculture, particularly in developing countries (Niehans, 1977).

17 The smallness of the Swiss domestic market was a powerful factor which stimulated the international expansion since the beginning of the twentieth century of Ciba-Geigy, Sandoz, and Hoffman-La Roche—the leading MNCs worldwide in pharmaceuticals and speciality chemicals. In more recent years, the Swiss market represented between 2 and 4 per cent of the world sales of these companies (Sally, 1993).

18 Although only one-third of the capital investments of these three Swiss chemical firms and an average of over a fifth of their employees are in Switzerland, their production and research are still largely concentrated in Switzerland. Sandoz had 95 per cent of its pharmaceutical production in Basel, and 40 per cent of Ciba-Geigy’s chemicals production was in Switzerland. In addition, 55 per cent of Ciba-Geigy’s and Sandoz’s total R&D budgets were spent in Switzerland. This has contributed to the chemicals industry having the highest research intensity of all industries of the Swiss economy (Sally, 1993).

19 For example, Ciba-Geigy initiated its own production of an important intermediate product for dyestuffs which was previously bought from Bayer, the most important competitor in the product market (Niehans, 1977).

20 For example, a Zürich graphics company did have a subsidiary at Como, and Société pour la Fabricacion de la Pâte de Bois—a Swiss holding company—owned factories at Carmignano di Brenta and at Friola in Italy (Wavre, 1988).

21 These alternative strategies of internationalization are by no means new to Swiss MNCs that used them widely from the early 1890s onwards. For example, the three chemical firms, Ciba, Sandoz and Geigy, jointly operated production facilities in the United States, the United Kingdom, Italy and elsewhere from the 1920s well into the 1960s. And in 1977, Sandoz established a joint venture with the French enterprise Rhône-Poulenc in the field of hospital supplies. As in the case of MNCs from other countries, Swiss MNCs tended to resort to such strategies in conditions of relative economic insecurity, rapid expansion and so on (Schröter, 1993).

22 This is shown in the fact that since the first half of the 1970s the Swiss firms in service industries such as banking, insurance, retailing, construction and energy have been growing more rapidly and performing better in the domestic stock markets compared to firms in metals, machinery, engineering, pharmaceuticals and chemicals whose performance were relatively lacklustre (Niehans, 1977).

23 The international dimension is crucial in reinsurance from both the underwriting and investment perspectives. From the underwriting perspective, efficient risk management requires diversification across different insurance lines and geographic areas. From the investment perspective, efficient portfolio management does not require that assets and liabilities be matched in every national market separately, but does require the ability of firms to shift assets freely to meet claims in various
national markets (Niehans, 1977).

24 Public funding accounted for the remaining 20 per cent of total Swiss R&D, the lowest in the OECD, with the federal government’s role limited largely to supporting basic research in universities, higher technical colleges and federal institutes of technology (Sally, 1993).
The emergence and evolution of multinational corporations from Hong Kong

Introduction

Although the origins of Hong Kong-based MNCs can be traced to the British colonial period and Hong Kong’s position as an entrepôt for trade in South East Asia and China, indigenous Chinese firms based in Hong Kong emerged as MNCs in the early 1950s, thus reflecting a longer history by comparison to MNCs from Taiwan and South Korea whose emergence can be traced to the early 1960s. Hong Kong has grown to become a significant home country of FDI with an outward FDI stock of $154.9 billion in 1998, or some 3.8 per cent of the global stock of outward FDI. Indeed, it had become the world’s tenth-largest source of FDI in that year based on the size of outward FDI stock after the United States (with a share of 24.1 per cent of the global stock of outward FDI), United Kingdom (12.1 per cent), Germany (9.5 per cent), Japan (7.2 per cent), the Netherlands (6.4 per cent), France (5.9 per cent), Switzerland (4.3 per cent), Italy (4.1 per cent) and Canada (3.8 per cent). In fact, Hong Kong is almost as important as Canada whose outward FDI stock was $156.6 billion in that year. Thus, Hong Kong had become a significant source of FDI in the world economy, particularly more so in relation to the stock of outward FDI from developing countries where Hong Kong is the single largest home country with a share of almost 40 per cent.¹

Not only is Hong Kong comparable to Switzerland as a home country of FDI in terms of the size of outward FDI stock, the study of the emergence and evolution of Hong Kong-based MNCs is of interest as another case study of MNCs from a resource-scarce small country. The growth pattern of Hong Kong-based MNCs as it has been evolving over the last half century can thus be compared to those based in Switzerland that share a similar pattern of national economic development and whose longer MNC history has been analysed in the previous chapter in this part of the book.

Before the historical excursion into the history of Hong Kong-based MNCs, it is important to clarify two key points. Firstly, this Chapter relates to the history of MNCs based in Hong Kong which includes not only the outward FDI of indigenous Chinese firms in Hong Kong, but also outward FDI coursed through Hong Kong whose ultimate beneficial ownership can be traced to another country. This applies to the outward FDI by holding companies established in Hong Kong by Australia, the United Kingdom and other industrialized countries that have business interests in South East Asia as well as outward FDI by some of the trading and financial companies in Hong Kong founded and in many cases still managed and controlled by the British: John Swire and Sons (HK
Hutchison International Ltd, Jardine Matheson and Company and the Hong Kong and Shanghai Banking Corporation (Wells, 1978).\(^2\) In addition, since the 1990s there have been significant amounts of indirect investments to China from Taiwan that were channelled through Hong Kong owing to the illegality of direct trade between Taiwan and mainland China (see Chapter 10). The inclusion in Hong Kong-based FDI of outward FDI whose ultimate beneficial ownership can be traced to a third country is important in the analysis of outward FDI emerging from Hong Kong and helps to partly explain the prominent position of Hong Kong as a home country of FDI particularly in recent years. It is for this reason that the term ‘Hong Kong-based’ firms or MNCs is used throughout this chapter and book.

Secondly, the government of Hong Kong does not collect data on inward and outward FDI in and from Hong Kong. Thus, the analysis of outward FDI from Hong Kong has had to rely on scattered reports and the scanty data and information provided by the host countries in which investment by Hong Kong-based MNCs had been significant (Chen, 1981; Wells, 1978). Given the large number of significant host countries of Hong Kong-based FDI and the different currencies and criteria used in the compilation of data on inward FDI in each host country which precludes any possibility of data aggregation across host countries, the analysis of Hong Kong-based MNCs is rendered somewhat difficult particularly with respect to the examination of the major types of outward FDI, the fundamental determinants of outward FDI and the major host countries, as well as the changes in these variables over time.

Bearing in mind these two caveats in the analysis of Hong Kong-based FDI, this Chapter aims to present a faithful account of the history of Hong Kong-based MNCs in three time frames: from the 1950s to the 1970s, the 1980s and the 1990s.

### The emergence of Hong Kong-based MNCs from the 1950s to the 1970s

To understand the origins of Hong Kong-based MNCs is to understand the economic and political history of Hong Kong as a British colonial entrepôt. Indeed, from its inception as a British colony in 1841 until the mid-twentieth century, the integration of Hong Kong in the world economy had been dictated by its role as a trans-shipment point for British exports to China and, to a lesser extent, other parts of the region and as a hub for Chinese commodity and financial transactions with Europe and the United States (Henderson, 1989). With a share of two-thirds of the exports (or re-exports) of Hong Kong, China remained the principal export market of Hong Kong until 1951 (Phelps Brown, 1971). The virtual elimination of the entrepôt trade with China as a result of the Chinese Revolution of 1949 and the Korean War of 1950–53 which led to the export embargo on all goods of Chinese origin to the United States and the prohibition imposed by the United Nations on the export of essential materials and strategic goods to China (Szczepanik, 1958; So, 1986) combined with social changes in Hong Kong consequent to the Chinese Revolution and the restructuring of the world economy after the Second World War (Henderson, 1989) had powerful influences on the industrial development of Hong Kong starting from the early 1950s and the eventual development of the earliest
Hong Kong-based MNCs. The focus on the development of an export-oriented industrial economy in the 1950s in the face of the collapse of the entrepôt trade with China was facilitated by the transfer to Hong Kong from Shanghai of industrial capital and managerial expertise in textile production in response to the Chinese Revolution of 1949 with the military triumph of the Chinese Communist Party over the Kuomintang opposition.3 Thus, with the installation of modern factories combining new and modern production machinery and cheap refugee labour, the textile ‘barons’ of Shanghai were instrumental in placing textiles production at the core of the industrial development of Hong Kong in the 1950s, an industry that had from its inception a high export propensity and formed the major basis of Hong Kong’s export-led growth (see also Ho, 1992; Wong, 1988, 1991).4 Such export expansion was facilitated by the existence in Hong Kong of some 1,000 to 1,500 trading houses involved previously in the entrepôt trade with well-entrenched export links with the British and other export markets (Szczepanik, 1958). In addition, it helped that, although the Shanghai entrepreneurs had predominantly been oriented in their production towards the large domestic market of mainland China, a few had established export markets in Asia through ties with overseas Chinese in the region (Wells, 1978). With the structural problems associated with the cotton textile industry in Lancashire in the mid-1950s and the consequent shortfall of domestic textile supply to the domestic demand for cheaper cotton textiles and clothing in Great Britain (Gregory, 1985), British department stores and clothing chains not only concluded supplier contracts with Hong Kong manufacturers encouraged by Commonwealth preferential import tariff arrangements but also assisted directly with the further development of Hong Kong’s production capacity and with the improvement of the quality of their output (Phelps Brown, 1971). Since then, textiles and clothing had become a principal industry of Hong Kong in terms of employment and value of output and a major contributor to Hong Kong’s manufactured exports. In combination with the emergence and growth in the late 1950s of domestic production and exports of electronics (Henderson, 1989), industrial productivity grew by an annual average rate of 20 per cent through the 1950s, and by the end of that decade the value of manufactured exports of Hong Kong exceeded that of entrepôt trade even with its revival in the 1950s (Cheng, 1985). By the early 1960s Hong Kong had not only become the largest supplier of manufactured commodities in developing countries (Lin and Ho, 1980) but also a significant exporter to developed countries such as Great Britain.

The rapid development of an export-oriented economy and the spectacular export growth performance of Hong Kong firms led eventually to the imposition of trade barriers by threatened export markets. The defence of export markets provided the impetus behind the initial international production of Hong Kong firms in a manner and extent seen in few other developing countries (Wells, 1978). Indeed, defensive FDI by Hong Kong firms reflected export patterns. Thus, in the late 1950s exports by Hong Kong of simple consumer goods such as kerosene lanterns, flashlights, umbrellas and simple food products (biscuits, flour, etc.) faced tariffs and quotas designed to encourage their domestic production in low-income countries, including those initiated by Hong Kong-based firms. As exports of textiles and electronics suffered a similar fate in the 1960s and the mid-1970s respectively with the imposition of trade quotas in the developed
countries, defensive FDI by Hong Kong-based firms in the form of international production of textiles and eventually electronics was initiated in host countries where trade quotas had not yet been imposed. Although international production by Hong Kong-based firms had always been directed to lower-income developing countries, the market orientation of their international production activities in the 1950s geared towards the domestic markets of low-income countries had shifted rapidly since towards exports to the major markets of the developed countries to overcome trade protectionism. Thus, in terms of the types of international production financed by outward FDI, the pattern of Hong Kong-based FDI changed rapidly from import substituting manufacturing towards export platform manufacturing.

Based on the stock of Hong Kong-based inward FDI in host countries, manufacturing was the most important sector of Hong Kong-based FDI at the end of the 1970s, followed by the services sector and the primary sector. Manufacturing accounted for as much as 52 per cent of Hong Kong-based FDI in Indonesia as of 1976, 98 per cent of Hong-Kong based FDI in Malaysia at the end of 1979 and 55 per cent of Hong Kong-based FDI in Taiwan as of 1981 (based on data in Chen, 1981, 1983b). The predominance of outward FDI by Hong Kong in manufacturing at the initial phase of its expansion in international production provides further support to the close link between trade and outward FDI in the early phases of international production (Cantwell, 1989a). Although most of Hong Kong-based FDI at the end of the 1970s was concentrated in these three countries and Singapore, some foreign subsidiaries had also been established in other Asian countries such as the Philippines, Sri Lanka, India, Pakistan, Thailand and China and in Africa, particularly in Nigeria and Ghana. In addition, some Hong Kong-based FDI was made in Canada, Switzerland, the United Kingdom and the United States (Chen, 1981, 1983b).

Indeed, Hong Kong-based MNCs had already been exerting some significance in their principal host countries at the end of the 1970s as shown by the share of Hong Kong in the stock of inward FDI. In Indonesia, Hong Kong accounted for 12 per cent of inward FDI as of 1976, and was the second-largest source of FDI after Japan. In Malaysia, Hong Kong accounted for 11 per cent of the stock of inward FDI as of 1979, and was the fourth-largest source of FDI after Japan, Singapore and the United Kingdom. In Taiwan, Hong Kong accounted for 9 per cent of inward FDI as of 1981, and thus was the third-largest source of FDI after Japan and the United States (based on data in Chen, 1981, 1983b). In Singapore, Hong Kong accounted for 12 per cent of inward FDI as of 1980, and thus was the third-largest source of FDI after the United Kingdom and the United States (based on data in Department of Statistics, Singapore, 1992). It was only in the Philippines where Hong Kong accounted for a smaller share of a little more than 4 per cent of the stock of inward FDI as of 1980, owing to the dominant role of the United States and Japan (based on data in Alburo, 1988).

By 1980, the estimated stock of Hong Kong-based FDI remained low at $148 million which although far less significant than that of Singapore of $819 million was comparable to that of South Korea of $142 million and higher than that of Taiwan of $97 million. Five types of outward FDI undertaken by Hong Kong-based MNCs was evident around the end of the 1970s. In order of declining importance, these were: first, export
platform manufacturing FDI in developing countries; second, import substituting FDI in manufacturing in developing countries; third, services FDI in developing countries; fourth, outward FDI to secure supplies of essential raw materials; and fifth, FDI in developed countries. Each of these types of Hong Kong-based FDI in the 1970s is discussed below.

**Export platform FDI in manufacturing in developing countries**

As indicated above, although import substituting FDI in developing countries was the dominant type of Hong Kong-based FDI in the 1950s, export platform FDI in developing countries grew rapidly in the 1960s and became the most important type of Hong Kong-based FDI. Such export platform FDI was initiated by textile manufacturers in the 1960s and also by electrical and electronics manufacturers in the 1970s.

In the 1960s, the major determinant of international production of textiles by Hong Kong-based firms was to overcome the quotas imposed by developed countries on Hong Kong’s textile exports. Indeed, such quotas predate the establishment of the Multi-Fibre Arrangement in the early 1970s (Chen 1981, 1983b). The principal host countries were Singapore (where some 15 textile plants were established by Hong Kong-based firms in 1963 and 1964), Taiwan, Indonesia, Macao and Thailand (Lucy, 1969) where quotas on textile exports had not yet been imposed or were less severe and where ethnic ties to Chinese communities could be cultivated in the establishment and maintenance of foreign operations (Chen, 1981, 1983b; Wells, 1978). Since the United Kingdom was the principal export market for Hong Kong’s textiles, the attractiveness of Singapore as a host country was enhanced owing to its preferential trading arrangements with the United Kingdom as a member of the Commonwealth and also because of the presence of shipping and financial facilities (Chen, 1981, 1983b).

Although the major emergence of international production by Hong Kong-based firms in textiles in the 1960s was rooted fundamentally in the quotas imposed by developed countries on Hong Kong’s textile exports, the growth of international production in textiles beginning in the late 1960s and 1970s became even more imperative owing to the additional motivation to minimize production costs, to relieve domestic supply shortages of semi-skilled and unskilled labour, and to overcome the increasing competition between domestic firms in Hong Kong as well as the growth of emerging competition from firms based in the Asian newly industrialized countries (NICs). Increasing domestic competitive forces have been brought forth by the lack of opportunities for investment expansion within the limited domestic market of Hong Kong and by the specialization of Hong Kong in narrow lines of industrial activities. Thus, as labour and land prices in Hong Kong began to rise sharply and competition among domestic firms intensified, Hong Kong was losing rapidly its comparative advantage as a location for labour intensive production.

As confirmed by both the 1979 and 1982 surveys conducted by Chen (1981, 1983b) of Hong Kong-based firms engaged in defensive export oriented FDI, the choice of location of international production activities became more driven by the presence of abundance of unskilled and semiskilled labour, low labour and land costs, the presence of good
infrastructure, and political stability. The attractiveness of a host country was, of course, enhanced if it extended export incentives (as in the case of Malaysia), has no quotas imposed on its exports or enjoys a preferential trade access to the major export markets of Hong Kong (as in the case of Singapore). But a persistent feature of the location of international production particular to the Asia-Pacific region was the powerful alliances established by Hong Kong-based firms with the Chinese business community in different countries of South East Asia and China which provided business information as well as financial and marketing assistance. Indeed, the operations of Hong Kong-based firms in ASEAN had always been socially and culturally embedded in networks of relationships or guanxi (Granovetter, 1985, 1991; Granovetter and Swedberg, 1992). These regional business networks based on contacts spanning almost a century and close familial relations have provided strength to Chinese business organizations and paved the way for their economic hegemonic role in the business and commerce in the region (see also Wong, 1991). The emergence and growth of Singapore-based MNCs and Taiwanese MNCs in South East Asia only served to reinforce that hegemonic role (see Chapters 10 and 15).

The requirement to maintain the competitiveness of their exports became an important driving force for the increasing relocation of labour intensive production from Hong Kong to Asia beginning in the late 1960s, particularly also since keen competition was emerging from other Asian NICs. Since the mid-1960s, South Korea and Taiwan had exhibited similar patterns of industrial development as Hong Kong and, in fact, had become significant producers and exporters of similar manufactured products (Lee, 1989). Their lower labour and land costs combined with government assistance provided these countries with greater comparative advantages in the production and export of labour intensive products. Thus, trade barriers, declining comparative advantage of the home country in labour intensive production, the intensifying competition between domestic firms in Hong Kong and the emergence of competition from other Asian NICs worked to make export-oriented manufacturing an increasingly important activity by Hong Kong-based MNCs in South East Asia since the 1970s, and in China around the end of the 1970s. This included the expansion of existing FDI in Singapore, Taiwan, Indonesia, Macao and Thailand and the establishment of new textiles plants around South East Asia including in Malaysia, China and in Mauritius. The further expansion of international production in textiles in Taiwan had the additional advantage of challenging the emerging competition posed by the emergence of Taiwanese firms in labour intensive industries by producing directly in Taiwan where Hong Kong-based firms can similarly derive competitiveness from low wages and low land costs while capitalizing on their ownership advantages such as longer experience, higher productivity, and better management expertise (Chen, 1981). In Malaysia, Hong Kong-based MNCs were favoured by the special incentives provided by the Malaysian government to foreign firms engaged in export-oriented FDI as mentioned, while the declaration of a new and more open economic policy in China (Mun and Chan, 1986) fostered the establishment of 500 Hong Kong-based firms in that country in the early 1980s enticed by the need to overcome the severe shortage and consequent high prices of industrial land in Hong Kong and the presence of an abundant supply of labour in China which enables Hong
Kong to use China as a base for the production of labour intensive products or more labour intensive production process (Chen, 1983b). Indeed, Hong Kong-based firms counted as among the earliest and most significant investors in China—another manifestation of the close economic links between these two formerly separate countries attributable to their close historical ties, common ethnic and cultural heritage and geographical proximity. However, the smaller manufacturing concerns of Hong Kong-based firms in textiles, clothing, watches and electronics in the export processing zones in areas close to the Hong Kong—Macao border and in Fujian were often production arrangements in the form of subcontracting and compensation trade rather than FDI (Chen, 1981). In addition, Hong Kong-based firms established export-oriented manufacturing in Mauritius during the late 1970s and early 1980s enticed by the preferential trade access of Mauritius to the European Community through the Lomé Convention (Wells, 1983; Currie, 1986).

Indeed, textiles predominated the international production of Hong Kong by the end of the 1970s. Textiles and clothing accounted for more than 50 per cent of Hong Kong-based FDI in manufacturing in Indonesia in 1980, 50 per cent of Hong Kong-based FDI in all industries in Malaysia (or 51 per cent of Hong Kong-based FDI in manufacturing) in 1979, 17 per cent of Hong Kong-based FDI in all industries in Taiwan (or 30 per cent of Hong Kong-based FDI in manufacturing) in 1981. Undeniably, Hong Kong was a significant source of inward FDI in the textiles industry in some of these countries as seen, for example, in Malaysia where Hong Kong accounted for one-third of the stock of inward FDI in the textiles industry in 1979, and in Taiwan where Hong Kong accounted for 29 per cent and 44 per cent of the stock of inward FDI in the textiles industry and clothing and footwear industry respectively in 1981 (based on data in Chen, 1983b). In addition, the active participation of Hong Kong-based firms in small- and medium-sized projects in China had been crucial to the success of the export processing zones in that country. Hong Kong accounted for some 94 per cent of the realized FDI in the export processing zones in China at the end of 1981 (Chen, 1983b).

The emergence of Hong Kong-based export-oriented MNCs in the electrical and electronics industry in the 1970s had its origins in the development of the industry in Hong Kong starting from 1959 with the domestic assembly of transistor radios for Sony Corporation of Japan under subcontracting arrangements. This propelled the growth of Hong Kong’s first electronics company, the Champagne Engineering Corporation, which began to assemble over 4,000 radios a month for Sony, and some 11 other locally based companies which became more competitive producers of radios relative to those of Japan by 1961. The rapid growth of domestic competition and the 15-fold growth of Hong Kong’s exports of transistor radios to the United States between 1960 and 1961 led to the imposition of a ban by the Japanese government on the exports of transistors to Hong Kong which was replaced by imports from Britain and the United States (Chen, 1971). The continuing growth of production and exports through the 1960s and 1970s led to the imposition of trade barriers against the exports of electrical and electronics products of Hong Kong around the mid-1970s (Wells, 1978). This in turn triggered a strong ‘centrifugal force’ (Yeung, 1995) as an increasing number of Hong Kong-based firms emerged as MNCs by the late 1970s. Trade barriers and the minimization of production
costs became the primary determinants of the emergence and growth of export-oriented FDI in the electrical and electronics products industry starting in the 1960s particularly in Malaysia, Taiwan and Singapore, and became the second most important industry of international production of Hong Kong by the end of that decade.

Electrical and electronics accounted for 8 per cent of Hong Kong-based FDI in all industries in Malaysia in 1979 and 6 per cent of Hong Kong-based FDI in all industries in Taiwan (or 10 per cent of Hong Kong-based FDI in manufacturing) in 1981. Although their significance as a source of inward FDI in the industry from the perspective of host countries was not as significant as that in textiles and clothing, Hong Kong had become a noticeable source of inward FDI particularly in Malaysia where it accounted for 11 per cent of the stock of inward FDI in the electrical and electronics industry in 1979. In addition, Hong Kong became the most dominant source of export-oriented FDI in China as well as accountable for the smaller projects organized in the form of subcontracting and compensation trade for the production of textiles, clothing, watches and electronics in the export processing zones in areas close to the Hong Kong—Macao border and in Fujian, as mentioned above (Chen, 1981). By contrast, Hong Kong accounted for less than 2 per cent of the stock of inward FDI in the industry in Taiwan in 1981 owing to the dominant role of American and Japanese MNCs (Chen, 1983b).

The ownership advantages of Hong Kong MNCs in export-oriented industries over local firms in host developing countries derive from their longer experience in production and operations, superior management skills, more advanced technologies and better connections with export markets (Chen, 1983b; Wells, 1978, 1984). Indeed, considering that the origins of the Hong Kong-based textile ‘barons’ could be traced as far back to the emergence of an indigenous textiles industry in Shanghai in the inter-war period (see Chapter 9), extensive production experience combined with organizational expertise in the management of large-scale textile and clothing projects are their principal competitive assets over indigenous firms in developing countries. These competitive assets have proven sustainable because although some elements of their production know-how are embodied in the machinery, both production and organizational expertise are more tacit and embodied in the minds of the managers and engineers that have continually been engaged in the cumulative and interactive process of technology creation and their use in production. In the context of the evolutionary theory of innovation in MNCs of Cantwell (1995), these competitive assets have fashioned the distinctive path of technological development of Hong Kong-based firms which other firms cannot easily replicate. Even in cases when production know-how is largely embodied in machinery, Hong Kong-based firms have been able to sustain an ownership advantage since a potential new producer in a developing country would face difficulty in the use of new or second-hand machinery. New machines purchased at arms-length from the international machinery market are designed for long production runs and inappropriate for production conditions in developing countries (Wells, 1978), while the know-how to use second-hand machines to the extent that these could be obtained from the poorly developed second-hand machinery market (Dilmus, 1974) also poses high risks. The advantages of Hong Kong-based firms have derived not only from their access to machinery and their familiarity with second-hand machinery but from the ability to design special pieces of equipment...
for low-volume production that have either been produced in Hong Kong or obtained through bulk purchase from foreign machinery manufacturers.\textsuperscript{18}

Reinforcing the sustainable ownership advantages of Hong Kong-based firms based on longer experience in production and operations, superior management skills and more advanced technologies is the relationship with foreign buyers with which the firms have established a reputation for reliability. This has proven to be the most important competitive tool of Hong Kong-based export-oriented firms \textit{vis-à-vis} indigenous firms in developing countries further down in the pecking order even as these firms have over time developed a greater comparative advantage in labour intensive production (Wells, 1978).\textsuperscript{19} Indeed, Hong Kong-based firms employ a variety of marketing channels and are far are more sophisticated in their marketing skills than could be expected of a developing country. Besides selling to regular clients and buying groups abroad, Hong Kong-based firms advertise in trade journals, participate in trade fairs, have their own sales/marketing team, and a high proportion of firms have brand names of their own (Chen, 1983b).

Hong Kong-based MNCs in export-oriented industries have also been able to sustain competition posed by other foreign-based MNCs in host developing countries due to their better understanding of production conditions in developing countries, lower costs for managerial and technical staff, greater flexibility and adaptability, and closer language and cultural affinity (Chen, 1983b). Such differences in the proprietary or firm-specific advantages of developing country firms \textit{vis-à-vis} developed country firms can be understood within the framework of the theory of localized technological change advanced by Lall (1981, 1982, 1983b, 1983c). In this framework, the advantages of firms based in developing countries derive from their ability to innovate on essentially different lines from those of the more advanced countries, i.e. innovations that are based on lower levels of research, technology, size and skills. Based on the evolutionary theory of technological change of Atkinson and Stiglitz (1969), Nelson and Winter (1977, 1982) and Arthur (1988, 1989), the theory of localized technological change argues that technical change is firm specific, path dependent and irreversible because older technologies cannot be efficiently reproduced or transferred once an entire industry has progressed to new technologies and become firmly established. This helps to explain why developed country firms whose competitive assets derive from ‘frontier’ technologies, large-scale production and sophisticated marketing cannot replicate without high costs and risks the competitive assets of developing country firms based on widely diffused technologies, small-scale production, special knowledge of marketing relatively undifferentiated products or special managerial or other skills. The lower production costs of developing country firms derive from the use of more appropriate production techniques that are more labour intensive and smaller scale responsive to the factor conditions and market sizes of developing countries, lower costs of expatriate managers and technical specialists or lower building costs (Wells, 1973, 1978; Lecraw, 1976). Owing to their lower costs of production, Hong Kong-based firms have succeeded in gaining world market shares through price competition (Wells, 1973). These assets have not always been sufficient to sustain international production as shown in the joint ventures concluded by Hong Kong-based firms with firms from the developed countries.
to fulfil their need for technical assistance, overcome the lack of an established trade name and limited consumer marketing skills. Such is the case, for example, with the 45 per cent equity interest of a Japanese synthetic fibre manufacturer in a large Hong Kong-based textiles firm which had the objective of enabling the Japanese firm to expand its operations as part of a vertically integrated network throughout South East Asia and enabling the Hong Kong-based firms to gain access to synthetic fibres produced by the Japanese firm for its spinning and weaving operations (Wells, 1978).

**Import substituting FDI in manufacturing in developing countries**

Although export platform manufacturing FDI in developing countries has been the most important type of outward FDI of Hong Kong-based firms in the period until the end of the 1970s in industries in which these firms capitalize on their extensive production experience particularly in textiles and clothing, its outward FDI in manufacturing in developing countries also encompass international production geared to serve host country markets in which foreign plants had been established. Indeed, there is evidence to suggest that the earliest FDI by Hong Kong had been of this type. In the late 1950s as Hong Kong-based firms found their exports of simple manufactured items such as kerosene lanterns, flashlights and umbrellas threatened by tariffs and quotas designed to encourage local production in low income developing countries, Hong Kong-based firms initiated outward FDI in those very countries previously served through exports in order to defend markets gained through exports (Wells, 1978). Such investments grew in the 1960s and 1970s as tariff barriers associated with the pursuit of import substitution industrialization was imposed by many countries of South East Asia (UN, ESCAP, 1988).

Since the 1960s and 1970s import substituting outward FDI by Hong Kong-based firms had also begun to be significant in industries that had been of limited or no significance to the economy of Hong Kong owing to its limited size, lack of natural resources or because of environmental considerations (as in the case of chemicals) and thus domestic based firms had little or no domestic production experience in these industries. Thus, unlike the defensive export platform FDI propelled by defensive considerations to overcome trade barriers and high domestic production costs by international production in developing countries that had not been affected by trade barriers or affected less severely, or that have lower land costs and wages, import substituting manufacturing FDI has been driven by profits to be derived from the exploitation of comparative advantages of host countries and to serve and develop local market demand in host countries. This second type of import substituting manufacturing FDI represents an aggressive strategy adopted by Hong Kong-based firms in joint investment ventures with local firms in host countries by which new markets and new lines of activities were developed for their parent firms in Hong Kong and an assured supply of raw materials for the plastics and furniture industries in Hong Kong was secured (Chen, 1981, 1983a, 1983b).

This type of FDI has concentrated in different kinds of industries. The production of metal products, chemicals, food, minerals and metals and basic metals and paper
accounted collectively for some 50 per cent of Hong Kong’s FDI in manufacturing in Indonesia in 1980, while the production of food, drink and tobacco, chemicals, wood, fabricated metals, rubber and a whole range of other industries apart from textiles and electrical and electronics which accounted collectively for some 40 per cent of Hong Kong’s FDI in all industries in Malaysia (or more than 40 per cent of FDI in manufacturing) in 1979. In Taiwan, Hong Kong-based firms have focused on chemicals, plastics and rubber, pulp and paper, basic metals and metal products, non-metallic minerals, and machinery and equipment and a range of other industries apart from textiles and electrical and electronics that accounted collectively for some 31 per cent of Hong Kong’s FDI in all industries (or 57 per cent of FDI in manufacturing) in 1981.20

In some host countries such as Indonesia, Hong Kong’s FDI in the import substituting manufacture of chemicals, food, clothing and printing has gained increasing importance over time and became the more dominant pattern of Hong Kong’s manufacturing FDI over the 1980s. This development owed largely to the objective of the Indonesian government to support the growth of infant domestic firms in export-oriented, labour intensive production for which Indonesia had been developing a comparative advantage. For that reason, the growth of export-oriented manufacturing by Hong Kong-based firms in Indonesia in such industries as textiles, electronics, watches and clocks, toys and plastics began to wane in the 1970s.

Services FDI in developing countries

As mentioned, services was the second most important economic sector of Hong Kong-based MNCs at the end of the 1970s. The sector accounted for as much as 29.9 per cent of the stock of Hong Kong-based FDI in Indonesia as of 1976, and 43.8 per cent of the stock of Hong Kong-based FDI in Taiwan as of 1981. It was only in Malaysia where services accounted for a meagre 2 per cent of the stock of Hong Kong-based FDI at the end of 1979 (based on data in Chen, 1981, 1983b). Although data is not available on inward FDI in Singapore, it is probable that the the share of Hong Kong’s FDI in manufacturing declined by the end of the 1970s, with the growth in importance of services (Chen, 1983b).

This type of FDI has concentrated in different kinds of industries in different host countries. Hong Kong-based FDI in services was concentrated in trade/ hotels, construction and leisure services in Indonesia in 1976, transportation, services, banking and insurance, and trade in Taiwan in 1981, construction, tourism and trade in Singapore at the end of the 1970s, and in construction and tourism in China at the end of the 1970s organized in the form of large projects in joint investment ventures with local firms. In addition, what little services FDI there was from Hong Kong in Malaysia in 1979 was directed largely to hotels and tourism (based on data and information in Chen, 1983b).

The importance of services in Hong Kong-based FDI can be explained in the context of the process of deindustrialization and industrial restructuring in the Hong Kong economy since the early 1970s which has transformed the British colony into a leading trading and financial centre in the region (Ho, 1992). Indeed, although manufacturing still accounted for 27.6 per cent of gross domestic product at factor cost in 1979, the
diversification of manufacturing companies into property and other non-manufacturing activities combined with the relocation of their manufacturing activities to cheaper production sites in South East Asia and China is serving to further enhance the dominant role of services in the industrial structure of Hong Kong.

**Outward FDI to secure supplies of essential raw materials**

Outward FDI of this type is the fourth most important type of Hong Kong-based FDI at the end of the 1970s. The lesser importance of outward FDI of this type was associated with the position of the primary sector as the least important economic sector of Hong Kong-based MNCs at the end of the 1970s. The sector accounted for 18.2 per cent of the stock of Hong Kong-based FDI in Indonesia as of 1976. In the Philippines, some 58 per cent of Hong Kong-based-FDI in the period between 1978 and 1982 was in agriculture, thus emphasizing the sourcing of raw materials as a major motive for Hong Kong-based FDI in that country (ESCAP/UNCTC, 1986). However, the resource-rich country of Indonesia was the most important host country for Hong Kong-based FDI of this type in all primary sector industries but with a particular concentration on forestry and agriculture. The investments to extract timber in Indonesian or Malaysian Borneo—the main sources of Hong Kong’s hardwood—had several determinants. A few Hong Kong-based firms established foreign resource extractive operations to obtain timber as a raw material for the furniture manufacturing industry of Hong Kong whose origins could be traced back to the production by highly skilled artisan labour of traditional carved wooden furniture for both domestic and export markets since the early 1930s (Cooper, 1981).

While to some extent this type of FDI represented the backward vertical integration of manufacturing companies in resource extraction as an important means to stabilize supplies and costs associated with the instability of market prices for tropical timber (Wells, 1978), in some cases the timber extractive investments in Indonesia was accounted for by individuals or business groups which although based in Hong Kong either do not have parent companies in Hong Kong or have parent companies in Hong Kong in entirely different lines of business (Chen, 1981). These independent firms would be equivalent to the ‘free-standing companies’ coined by Wilkins (1986a, 1988a) in referring to the thousands of British companies established prior to 1914 which did not undertake any prior production in the United Kingdom before investing abroad but were registered in the United Kingdom and floated on the London capital market primarily for the purpose of undertaking business exclusively or mainly abroad. In the case of Hong Kong, the resource extractive FDI in timber were mostly accounted for by investment companies based in Hong Kong that treat FDI as form of portfolio investment (Chen, 1981; Wells, 1978) to gain monopoly rents or minimize business risks through the diversification or entry into new business activities.

The role of ethnic Chinese business contacts in the establishment and maintenance of Hong Kong-based FDI of this type was just as important, if not more important than that of other types of Hong Kong-based FDI in South East Asia and China. In Indonesia in particular, the investments in timber extraction consisted of informal joint ventures with
Indonesian military officials or with Indonesians of Chinese extraction, both of which enabled the investments not to be registered as foreign and thus circumventing the official prohibition of foreign participation in most timbering operations in Indonesia (Wells, 1978).21

**FDI in developed countries**

Outward FDI of this type is the fifth and least most important type of Hong Kong-based FDI at the end of the 1970s. There are several determinants of Hong Kong-based FDI of this type. Perhaps the most important was for the purpose of acquiring advanced foreign technologies and to obtain more secure access to the parts, components and semi-manufactures necessary for the assembly production in Hong Kong of some electronics products and watches. The foreign subsidiaries established by Hong Kong-based firms in Switzerland for the manufacture of watches, in the United States for the production of watches and electronics (to include the acquisition by the Hong Kong-based firm, Stelux, of 29 per cent of the United States-based Bulova Watch Company in 1976) and in the United Kingdom for the production of textiles (Chen, 1981, 1983b) are excellent cases in point of outward FDI of Hong Kong-based FDI in developed countries driven by these determinants. Outward FDI in these cases had been largely in the form of acquisitions which enabled Hong Kong-based firms to gain rapid market access and benefit from the established reputation (or brand name), production facilities, marketing outlets and other assets of their acquired firms.

Another determinant of outward FDI of this type was the horizontal integration of manufacturing companies in their major export markets in the developed countries for the purpose of defending markets for goods made in Hong Kong or other low-wage production sites by Hong Kong-based firms in the face of tariffs or to save on high shipping costs. An example of this was the outward FDI by Hong Kong-based furniture manufacturers that established final assembly plants for furniture in the United States with components shipped from Hong Kong or from foreign affiliates of Hong Kong-based firms. Apart from overcoming the higher shipping costs and tariffs on furniture, the establishment of the final assembly plant facilitated the determination of evolving consumer requirements for furniture in the United States. Another example was the acquisition of production facilities in England by a Hong Kong-based textile manufacturer for the purpose of obtaining the marketing channels of a failing British company. In both these examples, the assembly, production and marketing outlets established by Hong Kong-based firms in the developed countries enabled the firms to exploit more fully their advantages in low-cost production in South East Asia (Wells, 1978).

Other Hong Kong-based FDI in developed countries are determined by non-economic factors. For example, some Hong Kong-based investments in the textiles industry of Canada have claimed that the principal determinant of the investment was to acquire Canadian citizenship (Chen, 1983b).
The growth of Hong Kong-based MNCs in the 1980s

The 1980s was an era of rapid growth of Hong Kong-based outward FDI. In terms of actual FDI outflows based on balance-of-payments data, the annual average FDI outflows of Hong Kong was about $2.4 billion in the period between 1986 and 1991 compared to that of Taiwan of $3.2 billion and that of South Korea of $923 million. The estimated stock of Hong Kong-based FDI reached $13.2 billion in 1990 which when compared to its stock of $148 million in 1980 represents an annual average rate of growth of 57 per cent. Thus Hong Kong by 1990 had surpassed even Singapore as a home country of FDI whose stock of outward FDI reached $7.8 billion (Department of Statistics, 1996). Indeed, Hong Kong by 1990 had become a significant home country of FDI with a share of some 0.8 per cent of the global stock of outward FDI (based on data in UNCTAD, 1999). In fact, the 1980s may have marked the decade in which Hong Kong became a net outward investor in terms of FDI flows. Between 1984 and 1988, the annual average FDI outflows of Hong Kong at $2.5 billion was higher compared to that of FDI inflows at $1.8 billion (based on data in UNCTC, 1992). This trend was sustained in the later years between 1986 and 1991 when the annual average FDI outflows of Hong Kong at $2.4 billion was higher compared to that of its FDI inflows over the same period at $1.7 billion (based on data in UNCTAD, 1999).

Based on the stock of Hong Kong-based inward FDI in host countries, manufacturing remained the most important sector of Hong Kong-based FDI at the end of the 1980s, followed by the services sector and the primary sector. Manufacturing accounted for 100 per cent of Hong Kong-based FDI in Malaysia as of 1987, 54 per cent of the stock of Hong Kong-based FDI in Taiwan as of 1989, 46.5 per cent of Hong-Kong based FDI in the Philippines in the period between 1981 and 1989, and 29.5 per cent of Hong-Kong based FDI in Thailand in 1987 (based on data in Wong, 1992). The principal destinations of Hong Kong-based FDI at the end of the 1980s was China and South East Asia particularly Indonesia, Thailand, Taiwan, Singapore, South Korea, the Philippines and Malaysia (see also World Bank, 1989; Wong, 1992 and Yeung, 1994). The growth since the mid-1980s of Hong Kong FDI in the Asian region, including China combined with the parallel growth of FDI in the region by the other Asian newly industrialized countries - Singapore, South Korea and Taiwan—as well as Japan have helped to create an intra-regional dimension to trade and FDI that is increasingly becoming more emphasized over time. However, although most of Hong Kong-based FDI at the end of the 1980s was in the Asia-Pacific region, some Hong Kong-based firms have also invested in Mauritius, Mexico and in countries of the Organization of Economic Cooperation and Development (World Bank, 1989) to include Canada, Switzerland, the United Kingdom and the United States (see also Wong, 1992).

Indeed, Hong Kong-based MNCs had continued to exert some significance in their principal host countries as shown by their share in inward FDI at or around the end of the 1980s. In China, Hong Kong was the largest source of FDI (World Bank, 1989) including larger projects organized in the form of joint investment ventures with local firms, and
was responsible for a wide range of non-equity production arrangements including subcontracting, compensation trade and joint production. In Thailand, Hong Kong accounted for some 14 per cent of the flows of inward FDI between 1980 and 1990, and was the third-largest source of FDI after Japan and Singapore. In Indonesia, Hong Kong accounted for 11 per cent of the stock of inward FDI as of 1979, and was the second-largest source of FDI after Japan—a position essentially unchanged by 1990. In the Philippines, while Hong Kong accounted for a smaller share of a little more than 4 per cent of the stock of inward FDI as of 1980 owing to the far more dominant role of the United States and Japan, by 1991 Hong Kong accounted for 6.3 per cent of the stock of inward FDI despite the fact that the United States and Japan remained the dominant sources of inward FDI in that country.

It was perhaps only in Malaysia and Singapore that the relative importance of Hong Kong as a source country of FDI declined between the end of the 1970s and the end of the 1980s. In Malaysia, although Hong Kong accounted for 11 per cent of the stock of inward FDI as of 1979, and was the fourth-largest source of FDI after Japan, Singapore and the United Kingdom, it accounted for less than 5 per cent of the flows of inward FDI between 1980 and 1990, and thus became the sixth-largest source of FDI after Taiwan, Japan, Singapore, the United Kingdom and the United States. Similarly, although Hong Kong accounted for 12 per cent of the stock of inward FDI in Singapore as of 1980, and was the third-largest source of FDI after the United Kingdom and the United States, by 1989 Hong Kong accounted for less than 7 per cent of the stock of inward FDI and was only the fourth-largest source of FDI after Japan, the United States and the United Kingdom.

As at the end of the 1970s, there were five types of outward FDI undertaken by Hong Kong-based MNCs that could be identified around the end of the 1980s. In order of declining importance, these were: first, export platform manufacturing FDI in developing countries; second, import substituting FDI in manufacturing in developing countries; third, services FDI in developing countries; fourth, FDI in developed countries and fifth, outward FDI to secure supplies of essential raw materials. Thus in the decade of the 1980s resource extractive FDI became the least most important type of Hong Kong-based FDI. The discussion below focuses on the first and fourth types of Hong Kong-based FDI where important changes have taken place in the 1980s.

**Export platform FDI in manufacturing in developing countries**

This FDI type remained the most important type of Hong Kong-based FDI at the end of the 1980s. The determinants of this type of international production in previous decades stemming from trade barriers, declining comparative advantage of the home country in labour intensive production, the intensifying competition between domestic firms in Hong Kong and the emergence of competition from other Asian NICs continued to be relevant in explaining the pre-eminent role of export-oriented manufacturing by Hong Kong-based MNCs in China and in South East Asia throughout the 1980s.

Export-oriented production by Hong Kong-based firms in China of various forms in the 1980s have been concentrated in highly labour intensive assembly production of
mainly travel goods, handbags, toys and footwear of which some 80 per cent were shipped back to Hong Kong as re-exports. The much faster annual rate of growth of re-export trade from China to Hong Kong at around 28 per cent per year in relation to Hong Kong’s own manufactured exports at around 2 to 3 per cent per year made re-export trade the most dynamic force in the export-led growth of Hong Kong in the 1980s (Census and Statistics Department, *Hong Kong External Trade*, March 1991). The large-scale relocation of production to China by Hong Kong’s labour intensive manufacturers and the further expansion of existing investments and production arrangements in that country had been motivated largely by efforts to expand the volume of exports of labour intensive goods for which Hong Kong’s firms have a competitive advantage in combination with the lower land costs as well as abundant labour in China.

By comparison, export platform manufacturing FDI by Hong Kong-based MNCs in South East Asia have tended to display a wider product range, including higher value added and technologically more sophisticated products such as electronics and electrical appliances in addition to more standardized products (World Bank, 1989). Despite the far more dominant role of China in Hong Kong’s export platform FDI in manufacturing in the 1980s, the continuing trade privileges enjoyed by many countries of South East Asia under the Generalized System of Preferences (with the exception of Singapore) combined with the gradual shift in Hong Kong’s emphasis from the production of cheap goods to higher end products requiring higher skilled workforce, the political upheavals in China as exemplified in the pro-democracy crack-down in 1989, the difficulties of doing business in China including the lack of basic infrastructure and the presence of bureaucratic red tape (Chia, 1989) and the continuing threat to China’s most-favoured-nation trading status with the United States are factors that would ensure that South East Asia remains an important location for Hong Kong-based FDI of this type.30

Indeed, the magnitude of Hong Kong-based FDI of this type and the high degree of multinationality of Hong Kong-based MNCs involved was evident in the size of foreign employment in relation to domestic employment in Hong Kong. Around the end of the 1980s, Hong Kong-based firms employed around three and one-half times more people abroad than in Hong Kong which is probably the highest degree of internationalization of production seen in any home country.31

**FDI in developed countries**

Hong Kong-based FDI in the developed countries increased over the 1980s propelled by the same set of determinants as that in the period until the end of the 1970s. This type of Hong Kong-based FDI had increased considerably over the 1980s with the uncertainty surrounding the return of Hong Kong to mainland China in 1997. Outward FDI in the manufacturing sector in particular was motivated by a continuing interest in preserving market access, improving industry reputation and gaining access to established brand names, and upgrading technology (World Bank, 1989). Market diversification propelled the growth of Hong Kong-based FDI in the United States and in Europe in view of the growing trend toward regional economic integration in the North America Free Trade Agreement and the Single European Market, while the FDI by Hong Kong-based
clothing manufacturers in Canada, for example, had been geared to overcome quotas restrictions imposed by the United States against exports of clothing from Hong Kong as well as to benefit from NAFTA (Wong, 1992). Indeed, the continuing trend towards trade protectionism would continue to influence the expansion of Hong Kong-based FDI directly in the United States and Europe or indirectly through Hong Kong-based FDI in third countries. Perhaps the most notable Hong Kong-based FDI in manufacturing in the developed countries in the 1980s was the acquisition in 1989 by Semi-Tech Microelectronics (Far East) Ltd of Singer Sewing Machine Company, the owner of the Singer brand name and a vast network of sewing machine factories and consumer durable shops. Indeed, the Singer Sewing Machine Company highlighted in Chapter 2 of this book as a special case study of one of the earliest American manufacturing MNCs was no longer an American-owned company by 1989.

However, in the 1980s Hong Kong-based FDI in the services sector of developed countries also grew in a major way particularly in banking and financial services, hotels, trading and property. Indeed, owing to its welcoming attitude to Hong Kong-based investors and the enticement of investment-linked immigration, Canada was an important destination of some of the capital flight from Hong Kong prior to 1997 directed primarily into property. More importantly, there had been major acquisitions by large and prominent Hong Kong-based firms in the developed countries and in the United States and the United Kingdom in particular in the period since 1986 and this involved mainly the services sector (banking and finance, hotels and distribution).

The growth of Hong Kong-based FDI in services more generally and in developed countries in particular which have increased in importance since the mid-1980s is indicative of Hong Kong’s historical position as a British colonial entrepôt facilitated by the local establishment of large British companies in the banking and finance, trading and services industries starting in 1841 with the inception of Hong Kong’s colonial history. The eventual deindustrialization of Hong Kong’s economy with the emphasis towards the development of the services sector have led to its evolution as an international financial centre which had positive knock-on effects on the development of some local firms (Chen, 1989). The growth of significant outward FDI in banking and finance thus resulted from the position of Hong Kong as an investment base for many foreign-controlled corporations such as the Hong Kong and Shanghai Banking Corporation and Jardine Matheson as well as the home base of many locally controlled and indigenously Chinese companies such as Y.K. Pao Group and Li Kashing Group that equally became significant investors abroad in the banking and finance industries (see UN, TCMD, 1993a).

The further expansion of Hong Kong-based MNCs in the 1990s

The 1990s represented a continuation of the rapid growth of Hong Kong-based outward FDI. In terms of actual FDI outflows based on balance-of-payments data, the annual average FDI outflows of Hong Kong was about $20.3 billion between 1992 and 1998, an
amount more than eight times the annual average FDI outflows of $2.4 billion in the period between 1986 and 1991. The estimated stock of Hong Kong-based FDI reached $154.9 billion in 1998 which when compared to its stock of $13.2 billion in 1990 represents an annual average rate of growth of 36 per cent—a rapid rate of growth indeed but not as rapid as the 57 per cent annual average rate of growth registered between 1980 and 1990. Indeed, Hong Kong by 1998 had become an even more significant home country of FDI with a share of some 3.8 per cent of the global stock of outward FDI compared to its 0.8 per cent share in 1990 (based on data in UNCTAD, 1999).

The pattern of outward FDI of Hong Kong in the 1990s remained essentially similar to that pertaining in the 1980s. Thus, there had been relative stability since the emergence of Hong Kong-based MNCs in the role of manufacturing as the pre-eminent economic sector of Hong Kong-based FDI at the end of the 1990s, followed by the services sector and the primary sector. The principal destinations of Hong Kong-based FDI at the end of the 1980s was China and South East Asia, particularly Indonesia, Thailand and Singapore (see also Yeung, 1995). However, although most of Hong Kong-based FDI at the end of the 1990s as in decades past was in the Asia-Pacific region, some Hong Kong-based firms have also invested in Mauritius, Mexico and in the developed countries.

Indeed, Hong Kong-based MNCs had continued to exert some significance in their principal host countries as shown by their share in inward FDI in the 1990s. In China, Hong Kong accounted for 61 per cent of the stock of inward FDI in 1993, and China in turn accounted for some 75 per cent of total outward FDI stock from Hong Kong (Low et al., 1995). In Thailand, Hong Kong accounted for some 11 per cent of the stock of inward FDI in 1994, and was the second-largest source of FDI after Japan (based on data in Yeung, 1995).

However, the relative importance of Hong Kong in the inward FDI of Malaysia, Singapore and Indonesia declined in the 1990s. In Malaysia, although Hong Kong accounted for 11 per cent of the stock of inward FDI as of 1979, it accounted for less than 4 per cent of the stock of inward FDI in 1992, and thus was only the sixth-largest source of FDI after Japan, Singapore, Taiwan, the United Kingdom and the United States. Similarly, although Hong Kong accounted for 12 per cent of the stock of inward FDI in Singapore as of 1980, it accounted for less than 7 per cent of the stock of inward FDI in 1991 and thus was only the fifth-largest source of FDI after Japan, the United States and the United Kingdom and the Netherlands. In Indonesia, although Hong Kong accounted for 11 per cent of the stock of inward FDI in non-oil sectors as of 1979, it accounted for 8 per cent of the stock of inward FDI as of 1994, and thus was the third-largest source of FDI after Japan and Taiwan.

As in decades past, there were five types of outward FDI undertaken by Hong Kong-based MNCs that could be identified at the end of the 1990s. In order of declining importance, these were: first, export platform manufacturing FDI in developing countries; second, import substituting FDI in manufacturing in developing countries; third, services FDI in developing countries; fourth, FDI in developed countries and fifth, outward FDI to secure supplies of essential raw materials. Thus the types of Hong Kong-based FDI and their relative importance in relation to one another not only remained essentially stable in the 1980s and 1990s, but was perhaps reinforced in the 1990s. The brief discussion below
focuses on some aspects of first and third types of Hong Kong-based FDI where important changes have taken place in the 1990s particularly with reference to the expansion of Hong Kong-based FDI in China.

**Export platform manufacturing FDI in developing countries**

The dominant role of this type of Hong Kong-based FDI continued in the 1990s, precipitated by the high rates of GDP growth in Hong Kong since the recession of 1985 which have in turn led to high inflation rates, rising wages and an increasingly tight labour market made worse by high rate of emigration owing to uncertainties surrounding the return of Hong Kong to China in 1997.38 Ironically, the surge of export platform manufacturing FDI by Hong Kong-based firms was directed towards China with the result that the number of direct and indirect employment accounted for by Hong Kong-based manufacturers in Guangdong province reached 3 million by 1992 (Federation of Hong Kong Industries, 1992).

**Services FDI in developing countries**

With the further commitments made by China to economic reform in the early 1990s, including opening its doors wider to foreign investment, and the realization of the link between deeper capital commitments in China and the viability of their domestic business in Hong Kong, major Hong Kong-based companies have been enticed for the first time in the 1990s to invest in the development of property and public utilities in China including roads, railway networks, power plants, port development and management and telecommunications.39 This is for the purpose of assisting China to accumulate the basic social capital that is a prerequisite to private productive investments, to forge stronger and closer geographical and economic links between Hong Kong and the heartland of China and to ensure Hong Kong’s role in China’s long-term development.

**Conclusion**

This chapter examined the history of Hong Kong-based MNCs over the last half century. The major types of FDI undertaken by these firms, the determinants of outward FDI and their industrial and geographical patterns have remained essentially stable since the period of their emergence until the end of the 1990s. Five types of outward FDI undertaken by Hong Kong-based MNCs were evident around the end of the 1970s. In order of declining importance, these were: first, export platform manufacturing FDI in developing countries; second, import substituting FDI in manufacturing in developing countries; third, services FDI in developing countries; fourth, outward FDI to secure supplies of essential raw materials; and fifth, FDI in developed countries. By the end of the 1980s, these five major types of Hong Kong-based FDI remained valid except that the relative importance of the fourth and fifth FDI types had been transposed owing to the
faster growth of outward FDI in developed countries which led to this type of FDI becoming the fourth most significant type of outward FDI and resource extractive FDI becoming the fifth and least most significant type. Such pattern in Hong Kong-based FDI was sustained until the end of the 1990s.

The stock of outward FDI based in Hong Kong reached $154.9 billion in 1998 which represents some 3.8 per cent of the global stock of outward FDI. Indeed, Hong Kong is almost as important a home country for FDI as Canada whose outward FDI stock was $156.6 billion in that year. Hong Kong thus ranked as the tenth-largest source country of FDI in the world economy after the United States, United Kingdom, Germany, Japan, the Netherlands, France, Switzerland, Italy and Canada. The fact that its international production activities remained predominantly in the export-oriented manufacture of labour intensive products has not, in any way, made Hong Kong-based MNCs less successful controllers and coordinators of an international network of income-generating assets. Their mastery of technologies and long production experience in fairly narrow and defined areas of activity—the assembly and manufacture of light consumer goods for exports whose production are suited to lower-cost and labour-abundant developing countries—are strongly reinforced by their large reservoir of entrepreneurial and export marketing know-how and access to global distribution channels. Many of their firms have developed long-term, reliable and stable supplier relationships with their customers in their export markets (Wells, 1978, 1984). In such almost perfectly competitive industries where competitive advantage is based solely on price competition, Hong Kong-based firms have erected a powerful barrier to entry in export marketing, relationships with suppliers and access to global distribution channels. It is these managerial and marketing advantages rather than the possession of strong technological advantages that have given Hong Kong-based MNCs a unique and distinctive competitive edge to sustain a leading role in overseas labour intensive manufacturing over time and in spite of the growth of other developing countries that have developed greater comparative advantages in labour intensive manufacturing.

The pattern and growth of domestic industrial development by Hong Kong has been a cause and effect of the pattern and growth of their MNCs. The lack of explicit support by the government of Hong Kong for domestic industrial diversification and technological development has had three important implications. The first is deindustrialization associated with the declining contribution of the manufacturing sector to gross domestic product from 27.7 per cent in the period between 1970 and 1974 to 22.4 per cent in the period between 1980 and 1986 (based on data provided in Hong Kong Government, Estimates of Gross Domestic Product) associated partly with the relocation of manufacturing activities abroad through FDI. The second implication arises from the first and derives from the increasing dominance of the services sector in gross domestic product from 70.4 per cent in the period between 1970 and 1974 to 76.8 per cent in the period between 1980 and 1986 (based on data provided in Hong Kong Government, Estimates of Gross Domestic Product). Such growing dominance of services in domestic economic activity is also reflected in the increased importance of Hong Kong-based outward FDI in services. The third implication is the stable pattern of Hong Kong-based FDI with the persistently pre-eminent role of labour intensive production in a manner not
observed in any other country including Switzerland and Singapore, both small-sized countries with similar natural resource scarcity where there had been upgrading and deepening of the domestic industrial structure. To the extent that some industrial upgrading in manufacturing did occur in Hong Kong it revolved around the traditional industries of textiles and clothing in which domestic firms shifted in specialization from low- to high-quality products, but not in the development of heavy and chemical industry nor more advanced consumer durable or producer goods industries. The constraint imposed by the lack of domestic industrial upgrading has perhaps placed greater pressure on the internationalization of production by Hong Kong than a similar economy of an equally small size but with greater technological depth and which has managed to constantly upgrade to higher value added manufacturing and services industries.

In the labour intensive industries in which Hong Kong has been losing comparative advantage throughout the course of its history owing to trade barriers, rising production costs and shortages of domestic labour supply, international production has enabled Hong Kong-based firms to continue to reap the benefits of their expertise in the management and organization of labour intensive production and to maintain access to their export markets. But just as the limited domestic industrial development has not led to the evolution of international production of Hong Kong in more complex manufacturing activities, outward FDI as such has not also affected domestic industrial development of the Hong Kong economy in a significant way. This is despite the high degree of internationalization of Hong Kong-based firms and the increasing trend towards the relocation of labour intensive industries with the loss of comparative advantage. The limited evidence in support of the role of outward FDI in domestic industrialization is found in the clothing companies from Hong Kong whose domestic production have become geared increasingly towards flexible, higher quality and higher value added production for established export markets in Europe and North America on the basis of the supply of fabrics from their spinning and weaving subsidiaries in Taiwan. In addition, the closely integrated networks of production that had been established between parent firms in Hong Kong and their subsidiaries/suppliers in China have enabled the more sophisticated and complex parts of the production processes to be conducted in Hong Kong and the more labour intensive stages of the production processes to be conducted in China. It is perhaps their less significant outward FDI in import substituting manufacturing and resource extraction that enabled Hong Kong-based firms to develop new areas of expertise that could not have otherwise occurred owing to the limited size and resource base of the Hong Kong economy and the narrow industrial development policies that it has pursued. Perhaps this may change with efforts made in the 1990s to increase government collaboration with industry to foster domestic industrial and technological development.40

Notes

1 The analysis in this paragraph is based on data contained in UNCTAD (1999).
2 Many of the British trading companies in Hong Kong such as Jardine, Swire, and
Wheelock Warden have invested abroad in manufacturing (Chen, 1983b). In addition, the Hong Kong and Shanghai Banking Corporation has initiated major foreign acquisitions in the 1980s and 1990s through its holding company, HSBC Holding plc (UN, TCMD, 1993a). Estimates by Chen (1983a, 1983b) show that outward FDI by Hong Kong Chinese firms (including joint ventures with non-Chinese partners) in manufacturing would have probably accounted, by a very rough estimate, for 33 to 44 per cent of Hong Kong’s total overseas FDI (including investment in both manufacturing and services) in 1981.

3 Indeed, by the 1930s Shanghai had already developed a ‘modern’ cotton textile industry which as noted in Chapter 9 of this book determined the expansion of international production of Japan in cotton spinning in China in the inter-war period. The manufacturing base of Hong Kong from its inception had almost entirely been geared towards production for world markets. This is an industrialization process unique to Hong Kong and observed in few other countries including Singapore (Henderson, 1989). Although also a country of small size, Singapore underwent a phase of industrialization based on import substitution, however brief (see Wong, 1979).

4 This is not to say that textiles was the earliest industry to develop in Hong Kong. Since the early 1930s, traditional carved wooden furniture had been produced for both domestic and export markets by highly skilled artisan labour, and basic cotton clothing was made for export to other parts of the British empire in Asia, particularly to Malaysia (Cooper, 1981; Mok, 1969). Such manufactures, however, accounted for a small share of Hong Kong’s exports (Henderson, 1989). In addition, some plastics and metals firms were established in the late 1940s and 1950s.

Although these industries were export oriented, the export propensity was relatively lower in comparison to textiles, clothing and electronics (Chen, 1983b). Thus, Hong Kong had a head start among the Asian newly industrialized countries in export-oriented industrial development. By comparison, as evident in Chapters 10 and 11 of this book, the process of export-oriented industrialization in Taiwan and South Korea was initiated in a major way in the early 1960s. See also Deyo (1987) and Gold (1986).

5 This statement had been deduced based on available host country data provided in Chen (1981, 1983b) of the stock of Hong Kong-based inward FDI in Indonesia, Malaysia and Taiwan at or around the end of the 1970s. The percentage shares of the primary, secondary and tertiary sectors in Hong Kong-based FDI in Indonesia as of 1976 was 18.2 per cent, 51.9 per cent and 29.9 per cent, respectively. The percentage shares of the secondary and tertiary sectors in Hong Kong-based FDI in Malaysia at the end of 1979 was 98 per cent and 2 per cent, respectively. The percentage shares of the primary, secondary and tertiary sectors in Hong Kong-based FDI in Taiwan as of the end of 1981 was 1.2 per cent, 55 per cent and 43.8 per cent, respectively.

6 Data based on Yoshihara (1976) show that at least 85 per cent of total Hong Kong-based FDI in Singapore in 1973 was in food and beverages, textiles and clothing, chemicals and electrical products and electronics. And according to Wells (1978),
Hong Kong-based firms were responsible for more than 50 factories in one export area alone of Singapore in 1977.

7 In a study of the sectoral pattern of the growth of exports and outward FDI in the developed countries, Cantwell (1989a) found a greater correlation in the sectoral distribution of the growth of exports and outward FDI for the relatively newer investors such as Germany and Japan. By comparison, there is a much greater disparity in the sectoral distribution of growth of exports and outward FDI and, hence, greater scope for substitution between trade and outward FDI for the more mature and established international investors such as the United Kingdom and the United States.

8 Despite the seemingly wide geographical diversity of Hong Kong-based FDI, the bulk is concentrated in South East Asia and China where Hong Kong-based MNCs can profit from Chinese business networks and entrepreneurs. The role of the ‘Chinese’ factor in explaining the internalization of Chinese business firms and that of Chinese business networks on the location of international production was examined by Redding (1990, 1991) and Yeung (1994). The presence of such business networks had helped to reduce the psychic distance of international production particularly during the period of emergence. For example, a Hong Kong-based toy manufacturer set up its first foreign operation in 1951 in Singapore encouraged by the chairman’s personal friend who emigrated to Singapore during the communist takeover in mainland China. Similarly, a Hong Kong-based metal trading company participated in a minority share joint venture in Singapore on the basis of friendship and trust relations which was regarded to be far more important than any economic criteria in determining the decision to engage in international production and the location of international production. In the framework of Yeung (1994), these would be examples of inter-firm networks of business and network relationships or *guanxi* established by Hong Kong-based MNCs.

9 Data on Hong Kong, South Korea and Taiwan were based on UNCTAD (1999). The data on Singapore was obtained from Department of Statistics (1991) which indicated that the stock of outward FDI from Singapore reached S$1,677.7 million in 1981. This was converted to US dollars using the end-of-period exchange rate in 1981 obtained from the International Monetary Fund, *International Financial Statistics Yearbook 1998*, Washington, DC: IMF.

10 During the early twentieth century, turmoil and foreign occupations in mainland China forced an outward exodus of the Chinese workforce, particularly young labourers from the southern provinces. Many of these became permanent residents in the Chinese diaspora in South East Asia (Wong, 1991). The contacts and the ethnic ties by the Chinese business community in South East Asia determined the success of Chinese-led international business in the region.

11 Singapore continued to be an important location for export-oriented international production by Hong Kong through the 1970s, despite the higher industrial wage rates in that country by comparison with that in other Asian countries such as Taiwan, Indonesia, Korea, Thailand and the Philippines because of its higher labour productivity. In addition, land prices were much lower in Singapore and the
government of Singapore provided favourable considerations to the use of industrial land by foreign investors. However, since the end of the 1970s the growth of Hong Kong-based FDI in Singapore declined due in part to the increasing attractiveness of other Asian countries as host countries and in part to the new emphasis being accorded by the government of Singapore on capital and technology intensive industries in which Hong Kong-based firms were not yet ready to take part (Chen, 1981).

12 Lower wages are not an important determinant of Hong Kong’s production in China given that the labour processing charges fixed by the Chinese authorities were only marginally below the wage cost for the same job in Hong Kong, while workers in China were generally less productive (Chen, 1981). Thus the unit costs of production (the ratio of wage rates to local productivity) could have been higher in China than in Hong Kong.

13 Some 1200 million of the total 1280 million of Hong Kong-based FDI in China at the end of 1981 was in the export processing zones of China (Chen, 1983b). In subcontracting, Chinese factories usually perform the processing in accordance with the specifications of the foreign firms which supply raw materials and/or intermediate products. Most of the foreign firms engaged in subcontracting activities in China are Hong Kong based, and almost all the factories are in the border districts nearest Hong Kong. Compensation trade in China first began in early 1978 and was intended for larger industrial projects. Under this cooperative arrangement between China and foreign firms, China usually provided land and labour and foreign firms supplied raw materials, parts, machinery and equipment, and technical and managerial personnel as well as training for the Chinese labour. While requiring substantial initial investment, it had the advantage that foreign firms were not constrained by existing levels of skills and technology, and China is able to acquire modern technologies and management skills—one of the most important motives behind China’s liberalization of foreign trade and FDI. Many of the Hong Kong-based projects in China for the production of textiles, clothing, watches and electronics have been set up in the form of compensation trade (Chen, 1981).

However, even though some of the production arrangements by Hong Kong-based firms were non-equity forms of investments, the Hong Kong-based firms, being the monopsonistic buyers, exercised control over the production arrangements without the need of internalization provided by FDI. Evidence for this is found in the fact that over 80 per cent of the output of its subcontracting projects in China were shipped back to Hong Kong as re-exports (World Bank, 1989). Thus, while the manufactured exports of Hong Kong was growing at just 2–3 per cent per year in the late 1980s, the outward-processing-related exports of Hong Kong’s firms in China increased by around 28 per cent (Census and Statistics Department, Hong Kong External Trade, March 1991). A major explanation for the high share of the production output accounted for by Hong Kong-based firms in China that is re-exported to Hong Kong is the vertically integrated networks of production established between Hong Kong-based parent firms and their Chinese suppliers. Unlike the affiliates of Hong Kong-based firms in South East Asia in manufacturing
that typically produce final products, the various production arrangements accounted for by Hong Kong-based firms in China are typically responsible for only one stage of the production process, usually the labour intensive stage, much like the outward FDI of many American and European MNCs in developing countries. Owing to the limited technological and skill capacities existing in China, the more sophisticated parts of the production processes are performed in Hong Kong (Chen, 1981). In no other host country has Hong Kong developed a closely integrated network of international production.

14 Owing to the lack of a consistent data series on inward FDI in Singapore, no data could be found of inward FDI in Singapore at the end of the 1970s. However, based on estimates contained in Yoshihara (1976), Hong Kong-based FDI in Singapore amounted to $75 million in 1973, of which textiles and clothing accounted for 61 per cent of Hong Kong-based FDI in manufacturing. The relative importance of textiles and clothing had thus increased considerably from its 39 per cent share in Hong Kong-based FDI in manufacturing in Singapore in 1966 (based on data in Luey, 1969).

15 Owing to the lack of a consistent data series on inward FDI in Singapore, no data could be found of inward FDI in Singapore at the end of the 1970s. However, based on estimates contained in Yoshihara (1976), Hong Kong-based FDI in Singapore amounted to $75 million in 1973, of which electrical and electronics accounted for 7.5 per cent of Hong Kong-based FDI in manufacturing. The relative importance of electrical and electronics had thus increased from its 5.5 per cent share in Hong Kong-based FDI in manufacturing in Singapore in 1966 (based on data in Luey, 1969).

16 Based on a 1982 survey conducted by Chen (1983b) of 32 Hong Kong-based MNCs which accounted for a high proportion of Hong Kong’s total outward FDI, the efficiency and dynamism of management expertise of Hong Kong-based firms did not derive from having a high educational attainment (only one-third of the managerial staff of the 32 Hong Kong-based MNCs had received post secondary education), but rather from experience and the ability to learn and acquire the necessary skills rapidly. There was in-service training courses for managerial staff in half of the firms surveyed.

17 It was estimated that some 5–25 per cent of Hong Kong-based MNCs in manufacturing other than plastics production sourced their machinery and equipment from Hong Kong. By comparison, some 60 per cent of Hong Kong-based MNCs firms in plastics production utilized machinery and equipment from Hong Kong. Such high proportion was due to the capability of the machinery manufacturing industry of Hong Kong to produce very high quality and sophisticated plastics machinery for blow moulding, injection moulding and extrusion (Chen, 1983b).

18 Indeed, in some cases several Hong Kong-based firms were motivated to search for foreign business opportunities in developing countries in South East Asia and West Africa with abundant and low-cost labour to make use of labour intensive machinery and equipment no longer suitable for the domestic conditions of Hong Kong owing
to rising wages and which could not be sold arms-length in the poorly developed international markets for second-hand machinery. As a result, much of the equipment was repainted, labelled as new, and in some cases imported illegally to developing countries where outward FDI was made (Wells, 1978).

19 It is the superior connections to export markets that have proven harder to replicate by domestic firms in developing countries as shown in the case of Indonesia. Despite the restrictions imposed by the Indonesian government to the entry of new Hong Kong-based firms in the textiles and clothing industry in the 1970s in light of the growing comparative advantage of Indonesia in labour intensive production, Indonesian firms met limited success (Wells, 1978).

20 Owing to the lack of a consistent data series on inward FDI in Singapore, no data could be found of inward FDI in Singapore at the end of the 1970s. However, based on estimates contained in Yoshihara (1976), Hong Kong-based FDI in Singapore amounted to $75 million in 1973, of which food and drink, chemicals and other industries apart from textiles and clothing and electrical products and electronics accounted collectively for 31.5 per cent of Hong Kong-based FDI in manufacturing. The relative importance of these industries had declined from their 55.7 per cent share in Hong Kong-based FDI in manufacturing in Singapore in 1966 (based on data in Luey, 1969).

21 This would constitute an example of extra-firm and inter-firm networks in the typology of Yeung (1997) in describing the three dimensions of networks of relationships or guanxi in which the operations of Hong Kong-based firms in South East Asia are socially and culturally embedded. The extra-firm networks are all kinds of political relationships or connections at the highest level of government to overcome regulatory barriers or institutional obstacles to the conduct of business. This is done by coopting influential politicians in local subsidiaries of Hong Kong-based MNCs in foreign countries or simply by calling on political connections available to the Hong Kong parent firms. The inter-firm networks are the overseas Chinese networks which form the social and cultural basis of Chinese business whose FDI are helping to transform the Chinese-based inter-firm networks into a Chinese commonwealth (Kao, 1993).

22 This statement had been deduced based on available host country data provided in Wong (1992) on the stock of Hong Kong-based inward FDI in Thailand, Taiwan, Philippines and Malaysia at or around the end of the 1980s. The percentage shares of the primary, secondary and tertiary sectors in Hong Kong-based FDI in Thailand as of 1987 was 8.5 per cent, 29.5 per cent and 62 per cent, respectively. The percentage shares of the primary, secondary and tertiary sectors in Hong Kong-based FDI in Taiwan as of 1989 was 0.3 per cent, 54.1 per cent and 45.6 per cent, respectively. The percentage shares of the primary, secondary and tertiary sectors in Hong Kong-based FDI in the Philippines between 1981 and June 1989 was 6.5 per cent, 46.5 per cent and 46.1 per cent, respectively. The secondary sector accounted for 100 per cent of Hong Kong-based FDI in Malaysia as of 1987. In addition, qualitative data contained in Yeung (1994) indicate that in the period between 1980 and 1988 there were 42 projects of Hong Kong-based firms in the manufacturing
sector of Indonesia and 15 in the services sector, compared with 14 projects in agriculture and none in mining. In Singapore, on the other hand, there seemed to be a marked concentration of Hong Kong-based FDI in services particularly in commerce, restaurants and hotel services and finance.

23 A survey conducted by World Bank (1989) of 2,000 Hong Kong-based manufacturing firms in November 1988 indicated that the firms accounted for $12 billion in cumulative FDI abroad as of mid-1988. Of this amount, outward FDI in China made up approximately $6.5 billion or more than half, while third countries accounted for the rest. A similar conclusion is reached by Yeung (1994) who stated that more than two-thirds of Hong Kong’s FDI outflows in the 1980s have been directed to East, South and South East Asia, and another third to the United States. Within the Asia-Pacific region, a large proportion had been invested in China and particularly in the Guangdong Province. In June 1991, some $16 billion of FDI in that province (or four-fifths of its total FDI) were sourced from Hong Kong.

24 The announcement of China’s Law on Joint Ventures on 8 July 1979 led to some larger projects by Hong Kong-based firms in China organized in the form of joint investment ventures. Of the 29 projects set under the joint venture scheme, 16 had Hong Kong participation in the early 1980s. However, the smaller projects continued to be arranged in the form of compensation trade, cooperation and subcontracting. In the early 1980s another form of FDI in China had been introduced by the Chinese government, namely joint production by which the control over production and the share in profits are determined beforehand by contracts and agreements instead of by relative shares of partner companies in total capital investment. Most of these joint production projects with foreign firms were in Guangdong and accounted for by investors from Hong Kong (Chen, 1983b).


26 Calculated based on data on inward FDI in Indonesia contained in Lee (1990) for data for 1979, and in ADB (1988) and Tan et al. (1992) for data for the years between 1980 and 1990.


28 Based on data and information on inward FDI in Malaysia contained in Chen (1981, 1983b) for data for 1979, and in ADB (1988) and Tan et al. (1992) for data for the years between 1980 and 1990.

29 Based on data on inward FDI in Singapore contained in Department of Statistics, Singapore (1992).


31 Such figure was arrived on the basis that there were some 2 million people employed by 2,000 Hong Kong-based firms in China in 1988/1989 (Thoburn et al., 1990) and 1 million people employed in other foreign countries (UN, TCMD, 1993a), and the domestic employment in Hong Kong was around 870,000 (Thoburn
et al., 1990).
33 See ‘Right this way: Hong Kong money in Canada’, *The Economist*, 23 March 1991.
34 See UN, TCMD (1993a) for examples. The global expansion of Hong Kong and Shanghai Banking Corporation (HSBC), particularly in the developed countries, was in support of its role as one of the world’s largest financial institutions. The bank controlled more assets than any other foreign bank in the United States. Its aggressive investment strategies in the United States had taken the form of acquisitions: it purchased Marine Midland Bank as well as Golden Pacific and Global Union—American financial institutions that cater to the American Chinese market. See ‘Hong Kong bank wants a bigger share of American market’, *Asian Finance* (Hong Kong), 15 March 1987. Through its holding company HSBC Holding plc, the HSBC completely acquired Midland Bank in the United Kingdom in 1992. See UN, TCMD (1993a).
38 See also ‘Asia its oyster: Hong Kong’, *The Economist*, 8 December 1990.
40 Towards this end, the Hong Kong University of Science & Technology was established in 1991, and the government invested $57 million in an Industrial Technology Centre. By creating a firm foundation in basic science, it is expected that the university and research centre will help foster Hong Kong’s and South China’s industrial competitiveness in more advanced industries such as advanced electronics and telecommunications. See ‘Is “the MIT of Asia” growing in Hong Kong?’, *Business Week Special Report*, 7 December 1992.
Owing to their status as British colonial entrepôts, the origins of both Singapore-based MNCs and Hong Kong-based MNCs can be traced to the British colonial period with the outward FDI of British companies based in these countries and some Chinese immigrants in Singapore. Thus, MNCs based in the Asian newly industrialized city states have a far longer history by comparison to MNCs based in the Asian newly industrialized countries with larger domestic markets, Taiwan and South Korea. With an outward FDI stock of $47.6 billion in 1998 or some 1.2 per cent of the global stock of outward FDI, Singapore was not as significant a source country of FDI as Hong Kong with $154.9 billion but considerably more significant than Taiwan with $38 billion and South Korea with $21.5 billion. Indeed, Singapore constituted the second-largest home country based in developing countries in 1998 after Hong Kong with a share of some 12.2 per cent of the stock of outward FDI from developing countries in that year.¹

The study of the emergence and evolution of Singapore-based MNCs is of interest as another case study of MNCs from a resource-scarce developing country with a small domestic market. The growth pattern of Singapore-based MNCs as it has been evolving since the British colonial period can be compared most directly to those of Hong Kong, another newly industrialized country in Asia, or more broadly to that of Swiss MNCs whose home countries share similar patterns of national economic development and whose histories have been analysed in the previous chapters in this part of the book.

Before the excursion into the history of Singapore-based MNCs, it is important to clarify two key points. This chapter refers to the history of MNCs based in Singapore which includes not only the outward FDI by locally owned or indigenous Chinese firms in Singapore, but also outward FDI by wholly or majority-owned foreign affiliates in Singapore whose ultimate beneficial ownership can be traced to another country. Owing to its history as a British colonial entrepôt and a Crown colony since 1867, Singapore was a base for the economic expansion of the British empire in Malaya, South East Asia and China until the Second World War as well as a base for Britain’s military expansion in East Asia until the late 1960s. The dominant role of foreign based MNCs in the modern economic history of Singapore meant that the role of Singapore as a base for the growth of their outward FDI in South East Asia and China prevailed since the Second World War. Since the 1970s, the development of Singapore as an international financial centre, the presence of a strong domestic currency, domestic political and macroeconomic
stability, the relatively liberal financial regime as well as a safe haven for some excess savings of countries in South East Asia has also made the country an important financial base from which foreign companies launch outward FDI in the region (see also Lim, 1990). Indeed, the share of wholly and majority-owned foreign companies in the stock of outward FDI from Singapore reached 47.7 per cent in 1981 and although such share had been declining in the first half of the 1980s to reach a trough of 25.9 per cent in 1985, it climbed rapidly since to 33.6 per cent in 1989 and 56.4 per cent in 1993. Conversely, the share of wholly and majority-owned local companies or indigenous Chinese MNCs based in Singapore has been declining in significance. Their investments are accounted for not only by indigenous Chinese firms, some of which are family owned, but perhaps more importantly by the state-owned corporations and government-linked companies, companies established abroad originally by Chinese families that transferred their operations to Singapore in the 1970s as well as companies formerly foreign owned but subsequently acquired to become Singapore-based MNCs. The dominant role of foreign companies and state-owned companies in Singapore made the role of indigenous private enterprises in Singapore’s industrialization and outward FDI far less significant. Both the significant role of foreign companies as well as the peculiar nature of local companies based in Singapore help to explain the large amounts of outward FDI emerging from Singapore, particularly in neighbouring countries. It is for this reason that the term ‘Singapore-based’ firms or MNCs is used throughout this chapter and book.

Secondly, the government of Singapore has not published data on outward FDI from Singapore until the 1990s. Thus, as in the case of Hong Kong the analysis of outward FDI from Singapore has had to rely at times on scattered reports and the scanty data and information provided by the host countries in which investment by Singapore-based MNCs had been significant. Given the large number of significant host countries of Singapore-based FDI and the different currencies and criteria used in the compilation of data on inward FDI in each host country which precludes any possibility of data aggregation across host countries, the analysis of Singapore-based MNCs is rendered difficult particularly with respect to the examination of the major types of outward FDI, the fundamental determinants of outward FDI and the major host countries, as well as the changes in these variables over time.

Bearing in mind these two caveats in the analysis of Singapore-based FDI, this chapter aims to provide a faithful account of the history of Singapore-based MNCs as it relates to the unique pattern of the domestic industrial development of Singapore in three time frames: from the British colonial period to the 1970s, the 1980s and the 1990s.

The emergence of Singapore-based MNCs from the British colonial period to the 1970s

The history of Singapore-based MNCs is imbued inextricably in its British colonial heritage. The endowment of Singapore by Sultan Hussain of Johore to the British East India Company in 1819, the formation of the Straits Settlements uniting Singapore with Penang and Malacca (both British territories on the Malay peninsula) and the designation
of this settlement as a Crown colony in 1867 had important implications on the emergence of the first Singapore-based MNCs. As its importance as a British colonial entrepôt in South East Asia exceeded that of Penang—Britain’s main port in that region—particularly since the opening of the Suez Canal in 1869, Singapore rapidly became a base for the economic expansion of the British empire in Malaya, South East Asia and China until the Second World War as well as base for Britain’s military expansion in East Asia until the late 1960s. The prosperity of many British trading companies derived not only from mercantile activities in the free trade port but also from more productive endeavours in the Malay peninsula to include rubber plantations (the wild Brazilian rubber plant was cultivated in Singapore’s botanical gardens and then transplanted to Malaya) and tin mining, with the latter activity dominated largely by Chinese immigrants in Singapore that arrived from China as a result of major socio-economic upheavals and lengthy insurrections in that country between 1850 and 1878 (Mirza, 1986). Although this may have been the earliest outward FDI from Singapore in history, it may not have been considered as FDI given the union of Singapore with Penang and Malacca, both territories on the Malay peninsula, under the Straits Settlement formed by the British East India Company in 1826. In any event, investments in Malaya, South East Asia and China by British companies and Chinese immigrants based in Singapore flourished throughout the British colonial period. In fact, many Singapore-based companies had been well established in peninsular Malaysia before the separation of Singapore from Malaysia in 1965 (Pang and Komaran, 1985). In South East Asia, among the earliest Singapore-based FDI was that of the Khong Guan Biscuit Factory in biscuits manufacturing in Indonesia during the 1950s, and by other Singapore-based manufacturers such as Ho Rih Hua that had investments in Thailand, and Lau Ing Woon’s brothers that expanded in South East Asia (Chan and Chiang, 1994).

By 1959, it was recognized that entrepôt trade which had accounted for a considerable proportion of domestic employment and about half of Singapore’s total trade could not continue in its role as an engine of economic growth. This was owing to two factors: first, the changing pattern of trade away from colonial trade with the withdrawal of British colonial rule in the period around the Second World War. Indeed, the British imperial epoch was over with the capitulation of the Singapore’s military forces to the Japanese in 1942, despite the resumption of British control in 1945 (Mirza, 1986). Second, unemployment which increased considerably from 5 per cent in 1957 to 13.5 per cent by 1960 (Lecraw, 1985) became a major economic problem. The rate of unemployment was rising much faster than the annual population growth of 3.6 per cent between 1947 and 1957 or 4.3 per cent if migration is included. These two factors led *ipso facto* to industrialization becoming the most rational development strategy for the country (Wong, 1979).

The history of modern Singapore is intertwined closely with the development of the People’s Action Party (PAP) of Lee Kuan Yew as an anti-colonial movement (Mirza, 1986). Based on the party’s manifesto that the development of manufacturing industries is the long-term solution to unemployment, the liberal faction of the party proceeded to the reins of power in 1959. The party chose to rely on foreign capital as a tool to attain rapid industrialization and economic growth and thus legitimize its political domination.
(Yeung, 1998). This was owing not so much to the weak industrial bourgeoisie and the lack of any significant domestic manufacturing base as argued by Yeung (1998), Rodan (1989), Yoshihara (1976) and Hughes and Yon (1969) because Singapore had already developed a fairly modern though nascent manufacturing base providing direct employment to 26,697 workers towards the end of the 1950s (Wong, 1979). Thus, there had neither been a shortage of domestic entrepreneurship nor a lack of supply of hard-working labour which have posed bottlenecks in the industrial development of other countries in South East Asia. The constraint to the industrial development of Singapore rather lay in the inadequate domestic managerial and technical know-how and knowledge about export market development (Wong, 1979) as well as financial resources for industrialization (Yeung, 1998). Moreover, the PAP-ruled state was suspicious of indigenous capitalists for fear of their pro-Communist and pro-China attitudes (McVey, 1992; Menkhoff, 1993) and thus the party led by Lee Kuan Yew neglected the role of local Chinese entrepreneurs in Singapore’s industrialization for social, economic and political reasons, despite their arguably infant state in the early 1960s (Régnier, 1993).

As a result, institutional structures such as the Economic Development Board and the Jurong Town Corporation were created in 1961 and 1968, respectively, and other measures were implemented including the offering of generous incentives schemes to pave the way for the dominant role that foreign companies would play in domestic industrial development. Among these measures was the state regulation of the labour market through the Trade Union (Amendment) Bill in 1966, the Employment Act in 1968 and the Industrial Relations (Amendment) Act (Rodan, 1989; Huff, 1995). These labour market regulations resulted in the creation of a highly disciplined and depoliticized labour force with limited rights to strike and bargain for wage increases or to engage in radical political dissent (Lecraw, 1985), thus facilitating the important role of Singapore in the emerging industrial division of labour spearheaded by global MNCs.

Nevertheless, the growth of indigenous firms was encouraged through government incentives such as the Small Industries Finance Scheme (SIFS), technical assistance, general assistance in establishing joint ventures with foreign companies as well as assistance provided by the state-owned trading company, Intraco, to indigenous firms in servicing foreign markets. In addition, state-owned companies or statutory boards invested in infrastructure development (the port, roads, and industrial and housing estates), in industries that were natural monopolies (utilities, water, transportation and port services) and in other industries in which private sector sector investment was not forthcoming to the desired extent (steel, petrochemicals and shipyards) (Lecraw, 1985) or as a means of overcoming the dearth of entrepreneurial, technological and capital resources in the domestic economy (Mirza, 1986). Furthermore, public investment in the manufacturing sector started as early as 1963 with the establishment of seven public enterprises: Sugar Industry of Singapore Ltd, National Grain Elevator Ltd, Singapore Textile Industries, Ltd, United Industrial Corporation Ltd, Singapore Polymer Corporation Pte Ltd, Jurong Shipyard Ltd and Ceramics (M) Pte Ltd (Rodan, 1989). Eventually, state-owned enterprises came to permeate such diverse manufacturing industries as food products, textiles, wood and wood products, printing and publishing, chemicals and petrochemicals, iron, steel and metal products, electrical and electronics
products, engineering products and shipbuilding and repair. The services sector has similarly been directly or indirectly regulated and promoted by statutory boards and enterprises such as the Monetary Authority of Singapore, the Singapore Tourism Promotion Board and the Development Bank of Singapore. Other state-owned enterprises also participated in all the major service industries such as banking and finance, distribution, communication, business services, tourism and real estate (based on information in Mirza, 1986). While such process of ‘state entrepreneurship’ (Mirza, 1986) has constituted an important driving force behind the restructuring and diversification of the Singapore economy in higher technology and higher value added industries which served to attract growing inflows of FDI by foreign MNCs in Singapore, some of the state-owned enterprises spun-off from statutory boards to include the Keppel Group, the Sembawang Group and Temasek Holdings became the government-linked companies that were the major driving force behind the regionalization drive of Singapore in the 1990s (Yeung, 1998). This had helped to create the image of ‘Singapore Inc.’ (Davies, 1983).

The annual average annual FDI outflows of Singapore based on balance-of-payments data reached $69.2 million between 1972 and 1979, a level seven times higher than the annual average FDI outflows of South Korea of $9.8 million between 1970 and 1979 and almost 29 times higher than that of Taiwan of $2.4 million in the same period. With an outward FDI stock of some $819 million by 1981, Singapore had been by far the most significant home country of FDI among the four Asian newly industrialized countries. Indeed, the size of outward FDI by Singapore was remarkable among developing countries particularly since the country had a population of only 2 million in the early 1980s (Lecraw, 1985).

To the extent that financial factors played a role in explaining the growth of outward FDI from Singapore in the 1970s this derives from the sharp appreciation of the Singapore dollar by more than 30 per cent against the United States dollar between the end of 1969 and the end of 1979. However, unlike in the case of Japan since the 1960s and Korea and Taiwan in the 1980s, the accumulation of large financial surpluses and foreign exchange reserves in Singapore had not been due to the growth of net exports in the 1970s but from the rapid growth in the domestic savings rate fostered by the government policy of compulsory contribution to the Central Provident Fund (the national savings scheme). This led the share of savings to GDP to increase two and one-half times from 11.5 per cent in the period between 1960 and 1969 to 28.8 per cent in the period between 1970 and 1979. To the extent that the high domestic savings rate may have provided a financial basis to the growth of Singapore-based outward FDI during the 1970s, the large pool of potential investment capital amassed by the national savings scheme may have favoured the state-owned enterprises rather more than private sector enterprises whose potential financial resources for investment was channelled instead to the Central Provident Fund, thus restraining their capacity to finance domestic and overseas expansion. The savings-investment process of Singapore has thus served to crowd out the growth of local Chinese entrepreneurship (Tan, 1991). Apart from funding the domestic and foreign expansion of state-owned companies, the amassed financial resources by the state-enforced savings scheme may have also been recycled through the
massive growth of foreign portfolio investments for which the government of Singapore had been responsible. Indeed, the Government of Singapore Investment Corporation had over $15 billion in foreign portfolio investments mainly in the United States in early 1983 ( Fortune, 21 March 1983).

Some 77 per cent of the stock of outward FDI by Singapore in the end of the 1970s and early 1980s had been concentrated in the developing countries of Asia, with some 64 per cent in South East Asia. Less than 5 per cent was directed to the developed countries mainly in the United Kingdom and the United States, but there had also been some investments in the Netherlands, other Europe and Japan (based on data in Department of Statistics, 1991).

In terms of industrial distribution, outward FDI by Singapore by the end of the 1970s had been present in all the three major economic sectors—primary, secondary and tertiary. Outward FDI in manufacturing was spread over a broad range of industries that were either dominated by local capital or foreign capital. This included low technology, low value added industrial and product niches and industries typically intensive in the use of labour and natural resources to include food and drink, clothing, printing and publishing, plastic products, leather and rubber products, cement and concrete products (such as bricks, tiles and clay products, earthenware, glass and other non-metallic mineral products), fabricated metal products and transport equipment that were local capital-dominated industries in Singapore in the late 1970s and early 1980s. In addition, outward FDI in manufacturing also emerged in textiles, wood products, paper products and in higher technology and higher value added industries such as petroleum products and electrical and non-electrical machinery that were foreign capital-dominated industries in Singapore in the late 1970s and early 1980s. The different industries in which foreign or local capital dominated reflected the difficulties faced by local firms to penetrate the higher value added industries owing to their lack of technology, experience, entrepreneurship and size (Mirza, 1986).

The locally based firms that have engaged in outward FDI in manufacturing have been of several types. This included the state-owned companies such as Intraco Ltd (a trading company), Keppel Shipyard (Pte) Ltd, and Sembawang Shipyard Ltd (both shipbuilding and repair companies), National Iron & Steel Mills Ltd (an iron and steel products company), and Acma Electrical Industries Ltd (a manufacturer of refrigerators and home appliances), among other state-owned companies. Among the privately owned companies that made outward FDI in manufacturing were Yeo Hiap Seng (a formerly family-owned food and drinks company that eventually became a public company), The Soap Manufacturing Company and Khong Guan Flour (local companies owned largely by Chinese families), and Wah Chang International and Jack Chia MPH (both migrating MNCs that had been established abroad originally by Chinese families that transferred their operations to Singapore in the 1970s). Both Wah Chang International and Jack Chia MPH are conglomerate companies with the former having interests in construction, shipbuilding and engineering and the latter having interests in pharmaceuticals, perfumeries, publishing and property (Pang and Komaran, 1985).

Apart from outward FDI in manufacturing, outward FDI from Singapore was also significant in services in the period around the late 1970s and early 1980s. This was
indicative of the dominant position of services in the GDP of Singapore at more than 71 per cent in 1979 (based on data in Huff, 1995) owing to the small size of the economy and its historical position as a trade entrepôt (Mirza, 1986). For example, Singapore-based firms have invested in civil engineering and construction projects in Sri Lanka, construction, engineering and support services related to shipping and oil production in India, hotels and construction projects in China, construction and engineering projects in the Middle East, and trading and property development in Australia and North America (Pang and Komaran, 1985), among other examples. The prominent position of engineering and construction in outward FDI reflected the leading role of state-owned companies in infrastructure development in Singapore particularly with the construction and buildings boom in the 1960s and 1970s. This is complemented by skills in architecture and town planning which enabled some Singapore-based firms to extend their business throughout the region of South East Asia, South Pacific and China capitalizing on their experience in planning the efficient tropical metropolis of their home country and in the management of complex design work such as that involved in the construction of large hotels and shopping complexes (Hill and Pang, 1991).

Similarly, the prominent role of Singapore-based MNCs in the marine industry (ship repair services, shipbuilding, oil rig construction, as well as marine engineering and related industries) signifies the importance of these industries in the economy of Singapore accounting for some 11 per cent of value added and employment in manufacturing and some 5 per cent of merchandise exports in 1982. The marine industry is dominated by indigenous firms which either wholly or majority own all but 40 of the 260 establishments in the industry (Mirza, 1986). Although some of the major local shipbuilding and repair companies trace their origins back to the British colonial period, the majority have been established since the 1960s and their development owed much to the successful transfer of more advanced technologies and organisational skills from their joint ventures with foreign shipbuilding companies, particularly those of Japan (Yeow, 1984). This enhanced the many skills and facilities already possessed by local firms in the marine industries and built on the excellent infrastructure and communications of Singapore as an established trading post and the rapid expansion of related industries (shipping, petroleum processing, oil services, etc.).

In addition to outward FDI in services, there had also been Singapore-based FDI in the primary sector to include oil exploration in China and Australia by such firms as Wah Chang International and Chuan Hup (Pang and Komaran, 1985), agricultural-based and mining activities in the Philippines (UN, ESCAP, 1988) as well as the cultivation and processing of palm oil in China and the extraction and processing of marble in Malaysia by such Singapore-based firms as Intraco, Keck Seng, Guthrie and Sim Lim Group (Tolentino, 1993), among other examples. The significant presence of vertically integrated outward FDI in the petroleum industry despite its inherent scarcity in petroleum resources reflects the position of Singapore as the largest oil services centre in Asia ranging from oil rig construction to tanker bunkering and state-of-the-art refinery and petrochemical manufacturing. In such capacity, Singapore performs an important role in refining and providing oil-related services to crude oil sourced from the Middle East, Indonesia, Malaysia and Brunei for the Japanese, other Asia and world markets (Lim,
Notwithstanding the presence of Singapore-based FDI in resource extractive activities, to obtain raw materials and intermediate was not the major determinant of the internationalization of Singapore-based firms (Pang and Komaran, 1985). Similarly, despite the pressures imposed by an increasingly tight labour market and rising wages in Singapore since the early 1970s, this had not been a major factor in the relocation of labour intensive operations offshore owing to the ready access to foreign labour under the government’s liberal worker policy (Chia, 1989). Instead, in a manner typical of MNCs based in small countries such as Sweden and Switzerland but not Hong Kong whose outward FDI was fundamentally of the export platform type, the major determinant of Singapore-based firms to engage in outward FDI in manufacturing and services stemmed from the need to find new markets and investment opportunities and to sell their technological expertise (see Chapters 4, 13 and 14). The main constraint to the growth of Singapore-based firms had been the limited size of the domestic market combined with growing protectionist policies in major export markets in the region.

Indeed, outward FDI starting in the mid-1970s had been a response to the policies instituted by the governments of Indonesia, Malaysia, Thailand and the Philippines to encourage the upgrading of their natural resource and agricultural products prior to export. This served to undermine the location-specific advantages of Singapore in resource-based industries such as the refining of petroleum and the processing of rubber, timber, vegetable oil and food and thus coerced both foreign-based MNCs and indigenous firms to retrench existing investments in these industries in Singapore and to re-direct these and subsequent investments outside of Singapore. Thus, even indigenous firms have been able to utilize their firm-specific advantages in product and process technologies as well as sourcing and marketing skills to compete in foreign markets through outward FDI (Lecraw, 1985).

Besides limited growth in the domestic market and to sell technological expertise, another important determinant inducing international production particularly for state-owned firms in mature industries had been the need for diversification towards high technology industries such as computers, microelectronics, robotics, biotechnology and genetic engineering. However, given that developed countries accounted for less than 5 per cent of the stock of Singapore-based FDI in the late 1970s and early 1980s, this factor carried far less weight in the determination of the outward FDI of Singapore in this period. However, it had been an important factor behind the outward FDI of the state-owned National Iron & Steel Mills that invested some $3 million in a few small venture capital companies in California as a means to gain access to advanced foreign technologies and their applications. Similarly, a major motivation behind the outward FDI by locally owned companies in printing and publishing that were concentrated in the developed countries had been to keep abreast of rapidly changing technologies in the industry. This was the primary motive behind the acquisition in the early 1980s of a large British publishing group by a locally owned publishing conglomerate based in Singapore in exchange for 100 million Singapore dollars (see Hill and Pang, 1991). In the quest to support domestic industrial diversification, the original remit of the Economic Development Board to promote inward FDI in Singapore had been expanded to assist
Singapore-based firms to engage in outward FDI (Pang and Komaran, 1985).

The expansion of Singapore-based FDI in the 1980s

The 1980s represented an era of even more rapid growth of Singapore-based FDI. Based on balance-of-payments data, the annual average FDI outflows of Singapore was about $215.3 million in the period between 1980 and 1989 compared to $69.2 million between 1972 and 1979, and the estimated stock of Singapore-based FDI reached $7.8 billion in 1990 compared to $819 million by 1981. Thus, from being the most significant home country of FDI among the four Asian newly industrialized countries in 1980, Singapore had been surpassed by Hong Kong and Taiwan whose stock of outward FDI reached $13.2 billion and $12.9 billion in 1990, respectively. However, Singapore remained a far more important home country of FDI relative to South Korea whose stock of outward FDI was $2.3 billion in 1990 (based on data in UNCTAD, 1999).

To the extent that financial factors played a role in explaining the growth of outward FDI from Singapore in the 1980s this derived from the continuing appreciation of the Singapore dollar by more than 12 per cent against the United States dollar between the end of 1979 and the end of 1989. As in the 1970s, the accumulation of large financial surpluses and foreign exchange reserves had not been created as much from net exports that reached an annual average level of 321.5 million Singapore dollars between 1980 and 1989 by comparison to net imports of 1,268.9 million Singapore dollars between 1970 and 1979 and 408 million Singapore dollars between 1968 and 1969 but rather from the continuing growth in the domestic savings rate fostered by the government policy of increased compulsory contribution to the Central Provident Fund (the national savings scheme). Thus, savings as a share of GDP increased further from 28.8 per cent in the period between 1970 and 1979 to 42.7 per cent in the period between 1980 and 1992 (based on data in Huff, 1995). As a result, the annual average foreign exchange reserves of Singapore increased almost fourfold from $3.0 billion between 1970 and 1979 to $11.9 billion between 1980 and 1989. However, the bulk of such reserves had been recycled as in previous decades in the form of portfolio investments abroad to include investments in developed country bond and government security markets, property, liquid debt instruments and in investments resulting in less than 5 per cent of the equity ownership of a number of large companies in the United States (Hill and Pang, 1991) or New Zealand. To the extent that such reserves may have financed outward FDI, it may have favoured the state-owned corporations that gained rather more from the national savings scheme compared to the private sector that had been deprived of potential investment capital (see also Yeung, 1998).

The even more rapid expansion of outward FDI from Singapore in the 1980s relative to previous decades had been accompanied by significant changes in its industrial and geographical patterns. This owed much to the swift process of domestic industrial restructuring towards higher value added manufacturing starting around the late 1970s as well as in services associated closely with efforts of Singapore to promote itself as an international centre for offshore banking, finance and other services, especially trading,
transport and communications from around the early 1970s (see Mirza, 1986). Indeed, more advanced manufacturing (to include the continued expansion of petroleum and petrochemicals), trade, tourism, transport and communications, and knowledge intensive service industries (computer, financial, medical and consultancy services) became the five pillars of growth (Lecraw, 1985).

Typical of the pattern of development of the manufacturing sector in most countries, Singapore had begun to alter its emphasis away from labour intensive industries in response to much lower unemployment rate of around 4 per cent in the early 1970s from 13.5 per cent in 1960 and the resultant labour shortages and rapid rise in real wages despite efforts by the government to limit wage increases by wage controls and encouraging immigration which provided the domestic economy with access to foreign labour (Lecraw, 1985). The attainment of full employment around the mid-1970s, the presence of already high levels of foreign workers combined with mounting trade protectionism in export markets against Singapore’s labour intensive products in the late 1970s and early 1980s triggered the implementation of policies to encourage the development of domestic manufacturing industries that embody higher value added and human capital and technological intensity, as well as emphasize the further development of the service industries that accounted for more than 71 per cent of GDP in 1979. This pattern of domestic industrial upgrading in Singapore’s manufacturing sector was not evident in Hong Kong where the more laissez faire stance of the state led to the limited industrial upgrading of its manufacturing sector (see Chapter 14). By 1979 the Economic Development Board of Singapore designated 11 manufacturing industries for promotion: automotive components, machine tools and machinery, medical and surgical apparatus and instruments, specialty chemicals and pharmaceuticals, computers, computer peripheral equipment and software development, electronic instrumentation, optical instruments and equipment (including photocopying machines), advanced electronic components, precision engineering products, and hydraulic and pneumatic control systems (Lecraw, 1985).

Such process of domestic industrial upgrading required an even greater reliance on foreign MNCs to provide the package of assets: technology, capital, management, and access to markets as well as increasing state entrepreneurship. Thus, the provision of more attractive investment incentives was complemented by extensive programmes for industrial training and skill upgrading to enhance the productivity of labour, the implementation of mandatory rapid increases in wages between 1979 and 1981 (thus reversing the policy of wage suppression in the 1960s and much of the 1970s) and mandatory increased payments by firms and labour in the state enforced savings and pension plan, the Central Provident Fund (see Rodan, 1989; Henderson, 1989; Wong, 1979). In addition, forward and backward integration by firms was encouraged to enhance value added per unit of output of goods produced in Singapore as well as the use of locally produced inputs and capital equipment. Not only did all these policy measures lead to the growth of domestic production and exports in more advanced industries but also enabled the diversification of export markets away from a concentration in developing countries towards high- and middle-income countries.

The central role of foreign MNCs in domestic industrial upgrading was evident in their
Increasingly dominant role in employment, value added, output and direct exports in the manufacturing sector between 1968 and 1989. In terms of total employment in the sector, these firms accounted for some 26 per cent in 1968, a share which increased further to 57.5 per cent in 1979 and 60 per cent in 1989. In terms of value added in the sector, these firms accounted for some 44 per cent in 1968, a share which increased further to 67.3 per cent in 1979 and 74 per cent in 1989. In terms of output in the sector, these firms accounted for some 46 per cent in 1968, a share which increased further to 73.8 per cent in 1979 and 76 per cent in 1989. In terms of direct exports in the sector, these firms accounted for some 54.4 per cent in 1963, a share which increased further to 85.2 per cent in 1979 and 86 per cent in 1989.19

Foreign MNCs also accounted for a considerable proportion of total paid-up capital in financial institutions and other business or producer services (such as consultancies and property), distributive services (including trade, transportation and communications) and social and personal services. For example, in financial institutions in 1980 foreign firms accounted for the majority of paid-up capital in merchant banks (87 per cent), commercial banks and Asian currency units (76 per cent) and insurance companies (67 per cent), while local firms dominated brokerage (99 per cent), finance companies (86 per cent), investment companies (82 per cent), discount houses (68 per cent) and other financial institutions (88 per cent). In producer services other than banking and finance in 1980, foreign firms accounted for the majority of paid-up capital in advertising and market research (77.9 per cent) and engineering, architectural and technical services (70.4 per cent), while local firms dominated property and housing development (88.6 per cent), business and management consultancy (71.4 per cent) and legal, accounting and data processing services (55.1 per cent). In social and personal services excluding government social services in 1980/81, foreign firms accounted for the majority of paid-up capital in social services (education and medical services) (55.9 per cent) and personal and household services (52 per cent), while local firms dominated leisure and cultural services (91.6 per cent) and restaurants and hotels (86.7 per cent). It was only in distributive services in 1980/81 that local firms accounted for the majority of the paid-up capital in the sector as a whole and in the component industries to include air transport (99.7 per cent), land transport (97.4 per cent), telecommunications (88.5 per cent), sea transport (80.1 per cent), retail trade (74.7 per cent), other transport (74.5 per cent), and wholesale trade (65.4 per cent).20 This symbolizes the strengths of local companies in a broad range of financial services other than merchant banking, commercial banks and Asian currency units and insurance, other producer services and social and personal services and especially distributive services—a legacy of its historical position as an entrepôt for trade in South East Asia with large internationally oriented service industries (Lecraw, 1985; Mirza, 1986).

Thus, by the end of the 1980s the economy of Singapore had been successfully transformed with a dual concentration in high value added manufacturing and as an international centre for offshore banking, finance and other services (Ho, 1993, 1994; Huff, 1995). Its economy had progressed beyond its traditional role during the British colonial period as an entrepôt for trade in South East Asia to fulfil a more complex and sophisticated role in modern times as the hub of trade, FDI and thus growth in South East
Asia (see also Lim, 1990). However, the more dominant role of foreign MNCs in the economy of Singapore also meant that the share of wholly and majority-owned foreign companies in the stock of outward FDI from Singapore increased significantly from a trough of 25.9 per cent in 1985 to 33.6 per cent in 1989 (based on data in Department of Statistics, 1991).

In terms of geographical destination, some 51 per cent of the stock of outward FDI by Singapore in 1990 had been concentrated in the developing countries of Asia, with some 26 per cent in South East Asia. This was a considerable decline from the corresponding shares of 77 per cent and 64 per cent in 1981. By contrast, more than 23 per cent was directed to the developed countries by 1990 compared to less than 5 per cent in 1981, showing the increased importance of outward FDI in New Zealand, Europe (particularly the Netherlands and the United Kingdom) and the United States (based on data in Department of Statistics, 1996) and largely directed towards property and property development (Tolentino, 1993). The importance of New Zealand as a host country for Singapore-based FDI proceeds from its geographical proximity and familiarity of Singapore with the business and legal practices of British Commonwealth countries. The latter reason also served to favour the United Kingdom, while the attraction of the United States was indicative of that country’s status as Singapore’s largest trading partner and as an important source of new technologies (Aggarwal, 1987).

Indeed, Singapore-based MNCs had continued to exert some significance in their principal host countries as shown by their share in inward FDI at or around the end of the 1980s. In Thailand, Singapore accounted for some 20 per cent of the flows of inward FDI between 1980 and 1990, and was the second-largest source of FDI after Japan. In Malaysia, Singapore had been the largest source of FDI in Malaysia at the end of 1987 (Chia, 1989) attesting the locational advantages associated with geographical proximity and close historical and business ties. However, Singapore accounted for less than 8 per cent of the flows of inward FDI between 1980 and 1990, and thus was the third-largest source of FDI after Taiwan and Japan. Singapore-based FDI in Malaysia in the 1980s have concentrated in a broad range of labour intensive and capital intensive industries to include food, drink and tobacco, non-metallic mineral products, textiles, electrical and electronics products, fabricated metals, basic metal products, chemical products, wood products, rubber products and transport equipment (Chia, 1989). There have also been substantial Singapore-based FDI in hotels and tourism, trade and financial services (UN, ESCAP, 1988). Given the wide spread of industries of Singapore-based FDI in Malaysia in the 1980s in industries dominated by both foreign and local capital in Singapore, the outward FDI in Malaysia have been accounted for both by locally owned firms as well as foreign MNCs based in Singapore. Singapore-based FDI in Malaysian manufacturing have been located predominantly in the southern Malaysian state of Johor, Singapore’s immediate hinterland, spurred by the conscious attempt by the Johor authorities at ‘economic twinning’ between the two cities. Apart from the obvious attraction of space and lower land rentals, the major incentives for Singapore-based manufacturers in labour intensive industries had been the lower wages and abundant labour availability. The relocation of labour intensive manufacturing industries of Singapore to Johor as a lower cost production base parallels that of the relocation of labour intensive manufacturing
industries of Hong Kong to Shenzhen and Guangdong Provinces (Hill and Pang, 1991).

It was perhaps in Indonesia and the Philippines where Singapore exerted far less significance as a source country of FDI. In Indonesia, Singapore accounted for some 1 per cent of the stock of inward FDI as of 1979, and some 3 per cent by 1990. This was indicative partly of the lingering reservations of Singapore’s business community about Indonesia and partly by Indonesia’s continuing mistrust of Chinese-based investments. In the Philippines, Singapore accounted for 0.8 per cent of the stock of FDI in 1991. This is owing largely to that country’s farther geographic and cultural distance compared to the rest of countries in South East Asia as well as its lacklustre economic performance since the late 1970s (Hill and Pang, 1991).

Singapore investors have also been attracted to China in the 1980s despite the long geographical distance, the lack of diplomatic relations and bureaucratic difficulties involved in investing and doing business in China. In mid–1988, Singapore-based FDI in China stood at $830 million, making Singapore the fourth-largest foreign investor in China, after Hong Kong, Japan and the United States. Their investments in Hong Kong have also grown rapidly, amounting to $306.9 million in 1989 directed towards manufacturing, services and property in part to service China (see also Chia, 1989).

The continuing importance of South East Asia and China to Singapore-based FDI in the 1980s, or at least that part attributable to indigenous Chinese firms, was broadly parallel to the expansion of outward FDI from Taiwan and Hong Kong to avail of the socially and culturally embedded networks of relationships or guanxi with the Chinese business community in different countries of South East Asia and China which provided business information as well as financial and marketing assistance (Granovetter, 1985, 1991; Granovetter and Swedberg, 1992). These regional business networks based on contacts spanning almost a century and close familial relations have provided strength to Chinese business organizations and paved the way for their economic hegemonic role in the business and commerce in the region (see also Wong, 1991). The emergence and growth in South East Asia of indigenous Chinese MNCs based in Singapore only serves to reinforce that hegemonic role.

In addition, that part of Singapore-based FDI attributable to indigenous Chinese firms display a distinct preference towards outward FDI through joint ventures or contractual resource transfers which tended to reflect not as much on the shortage of funds or host country regulations but rather the risk averse approach of indigenous Chinese firms based in Singapore and their lack of strong ownership-specific advantages given their concentration in industries with mature technologies (food, drink, basic metals, electrical and electronics, plastics, textiles and clothing). While some of the cash-rich, Singapore-owned conglomerate companies have displayed a higher propensity to engage in outward FDI through the establishment of wholly or majority-owned foreign affiliates, the mode of outward FDI of indigenous firms based in Singapore would remain eclectic reflecting the particular circumstances of the investment and the host country as well as the ownership-specific advantages of firms (see also Pang and Komaran, 1985).

In terms of industrial distribution, outward FDI by Singapore by the end of the 1980s had been as at the end of the 1970s present in all the three major economic sectors—primary, secondary and tertiary. Manufacturing and services continued to be the most
important economic sectors of economic activity relative to the primary sector.\textsuperscript{27} Owing to the success of domestic industrial upgrading of the Singapore economy, outward FDI in manufacturing at the end of the 1980s was spread over a far broader range of older and newer industries by comparison to the end of the 1970s with the range of industries continuing to encompass those that were dominated by either local capital or foreign capital in Singapore. The 1980s also witnessed the further growth of outward FDI in services by major state-owned enterprises such as Singapore Airlines (which has expanded into finance) and Keppel Shipyards (presently involved in retail banking, international finance and insurance) and changes in Singapore legislation in the 1980s meant that even the Monetary Authority of Singapore would assume an increasingly significant commercial as well as a regulatory role in the future (Mirza, 1986).\textsuperscript{28}

Although the expansion of Singapore-based FDI in the 1980s continued to be driven by the need to overcome the limited size of the domestic market and to expand production and service capacity as well as by the need to acquire more advanced forms of technologies in the developed countries, a major factor propelling the growth of outward FDI in the 1980s and particularly since 1986 had been the accelerated pace of wage increases in Singapore and the tightening labour market problem which, owing to tighter foreign labour and immigration restrictions, could no longer be relieved by unskilled labour importation as in the 1970s (see also Aggarwal, 1986, 1987; Chia, 1989; Hill and Pang, 1991).\textsuperscript{29} Although foreign capital had played a far more dominant role in the Singapore economy than in Japan which instead nurtured the growth of domestic infant industries through import substitution industrialization, the position of Singapore in the 1980s can nevertheless be compared to the position of Japan in the period immediately following the Second World War when rapid domestic industrial restructuring of the Japanese economy had been initiated and there was the expansion of Japanese FDI in manufacturing (see Chapter 9). In both countries, outward FDI was a crucial instrument or catalyst for the rapid process of domestic industrial upgrading in a manner broadly consistent with the views of Kojima and Ozawa (1985). In particular, the loss of comparative advantages of Singapore in labour intensive production precipitated the relocation of labour intensive industries to labour abundant developing countries, thus enabling Singapore-based manufacturers in these industries to continue to appropriate the returns to their accumulated managerial and technical expertise while also helping to encourage the diversification of the domestic economy in more modern manufacturing and service industries.

Outward FDI from Singapore in the 1980s had also been favoured by a shift in the policy stance of the government away from a focus on attracting inward FDI in the Singapore economy to the active encouragement of outward FDI, given its key role in the domestic industrial upgrading and economic growth of Singapore. Such encouragement to outward FDI included the expansion of the remit of the Economic Development Board to include the facilitation of outward FDI as well as the provision of various investment incentives.\textsuperscript{30}
The growth of Singapore-based FDI in the 1990s

The 1990s had been an era of the most rapid growth of Singapore-based FDI. Based on balance-of-payments data, the annual average FDI outflows of Singapore was $3.4 billion between 1990 and 1998 compared to $215.3 million in the period between 1980 and 1989 and $69.2 million between 1972 and 1979, and the estimated stock of Singapore-based FDI reached $47.6 billion in 1998 compared to $7.8 billion in 1990 and $819 million by 1981.\(^{31}\) Thus, among the four Asian newly industrialized countries Singapore continued to be surpassed in importance as a home country of FDI by Hong Kong whose stock of outward FDI reached $154.9 billion in 1998. However, Singapore remained far a more important home country of FDI relative to Taiwan and South Korea whose stock of outward FDI was $38 billion and $21.5 billion in 1998, respectively (based on data in UNCTAD, 1999).

To the extent that financial factors played a role in explaining the growth of outward FDI from Singapore in the 1990s this proceeds from the continuing appreciation of the Singapore dollar by almost 12 per cent against the United States dollar between the end of 1989 and the end of 1997. By contrast to the previous decades, the accumulation of large financial surpluses and foreign exchange reserves in the 1990s had been created more significantly from net exports which grew to annual average level of almost 13.3 billion Singapore dollars between 1990 and 1996, a level more than 40 times larger than the annual average level of net exports of 321.5 million Singapore dollars between 1980 and 1989 and net imports of 1,268.9 million Singapore dollars between 1970 and 1979 and 408 million Singapore dollars between 1968 and 1969.\(^{32}\) Such significant growth in net exports reinforced the continuing growth in the domestic savings rate fostered by the government policy of increased compulsory contribution to the Central Provident Fund (the national savings scheme) which as mentioned in the previous section increased the share of savings to GDP from 28.8 per cent in the period between 1970 and 1979 to 42.7 per cent in the period between 1980 and 1992 (based on data in Huff, 1995). As a result, the annual average foreign exchange reserves of Singapore reached $52.9 billion between 1990 and 1997 by comparison to $11.9 billion between 1980 and 1989 and $3.0 billion between 1970 and 1979. However, the bulk of such reserves had continued to be recycled through the growth of foreign portfolio investments and the growth of FDI by state-owned corporations which increased rapidly in significance in the 1990s (see Yeung, 1998).

The rapid expansion of Singapore-based FDI in the 1990s was a result of the emphasis placed on outward FDI as a means to overcome the vulnerabilities of Singapore to external shocks as displayed by the global economic recession in the mid-1980s which affected Singapore severely and, more importantly, to the dominant role of foreign capital in the domestic economy. A significant stock of outward FDI by local firms was envisaged to contribute to the greater resilience of the economy during economic recessions, reduce the dependence of Singapore on foreign capital for long-term economic growth as well as on developed countries for markets and divert concentration
away from the domestic market at the expense of a potential gain through participation in the regional market boom. However, the stunted growth of private entrepreneurship owing to past suspicions regarding the pro-Communist and pro-China attitudes of indigenous capitalists by the PAP-ruled state, the growth in dominance of foreign-based MNCs as well as state-owned companies in major domestic economic activities and the savings-investment process which worked against the financial interests of private firms led to the continuing less significant role of privately owned firms in the outward FDI of Singapore in the 1990s. This was despite the trend towards the privatization of state-owned companies since the mid-1980s to allow for greater private sector participation. Thus, apart from wholly- or majority-owned foreign affiliates based in Singapore which accounted for 56.4 per cent of the stock of outward FDI of Singapore in 1993, a significant proportion of outward FDI generated by locally owned firms based in Singapore were those of state-owned corporations or government-linked corporations (GLCs).33 Strengthened by the institutional support provided by state agencies and key politicians, these companies led the process of regionalization of Singapore-based firms in the 1990s whose FDI projects were mostly related to infrastructural developments located in Asia (Yeung, 1998). Nevertheless, efforts had been implemented to promote the long-term goal of enabling the private sector to play a more prominent role behind regionalization of Singapore-based firms.34

A second major determinant of Singapore-based FDI which explain the growth of their FDI in the developed countries has been the need to diversify in high technology industries. Indeed, there had been a significant increase in technology-related ventures by Singapore’s state-owned and government-linked companies in the Silicon Valley of the United States to support the dynamic comparative advantage of Singapore in semiconductors production. This certainly explains the outward FDI of some $300 million by Singapore Technologies Holding—one of the three largest state-owned holding companies in Singapore—in a range of fledging computer companies located in the Silicon Valley in the early 1990s.35

In terms of geographical destination, some 53 per cent of the stock of outward FDI by Singapore in 1993 had been directed to the developing countries of Asia (of which some 28 per cent in South East Asia), a significant decline from their 66 per cent share in 1989 and 77 per cent share in 1981. Thus, although Asia continued to be a significant host region for Singapore-based FDI, the importance of South East Asia in particular declined from its share of 64 per cent in 1981. This is owing to the considerable expansion of outward FDI in Hong Kong which reached 4 billion Singapore dollars in 1993 by comparison to South East Asia which attracted 5.9 billion Singapore dollars. By contrast, some 23 per cent was directed to the developed countries by 1993 representing a considerable increase from 16 per cent in 1989 and less than 5 per cent share in 1981. The most important developed host countries and regions were the United States, New Zealand and Europe (including the Netherlands and the United Kingdom) that had always been the most significant host countries of Singapore-based FDI (based on data in Department of Statistics, 1996).

The continued significance of South East Asia for the outward FDI of Singapore had been facilitated by the sub-regional ‘growth triangle’ formed by Singapore, the southern
peninsular Malaysian state of Johor, and the Riau island of Indonesia situated just south of Singapore in early 1990. A programme of coordinated public and private sector development projects in the growth triangle would combine the industrial expertise, technology, skills, infrastructure and services of Singapore with cheaper land and labour in Johor and Riau to accelerate the economic development of all countries. Joint infrastructure development projects and industrial incentive programmes have served to attract local and foreign factories in Singapore confronted with labour shortages, rising wages and a strong domestic currency to relocate to Johor and Riau which also offer cheaper storage and abundant land to Singapore-based companies (Lim, 1990; Lee, 1991).

As for industrial distribution, financial and manufacturing firms accounted for between 72 and 74 per cent of foreign direct equity investment of Singapore in 1992 and 1993. The most important industries of outward FDI in declining order of significance were finance, manufacturing, commerce, property and business services (based on data in Department of Statistics, 1996).

**Conclusion**

This chapter analysed the emergence and evolution of Singapore-based MNCs since the British colonial period until the present time. It showed that the history of Singapore-based MNCs is imbued inextricably with both the outward FDI of locally owned or indigenous Chinese firms in Singapore as well as the outward FDI of wholly or majority-owned foreign affiliates in Singapore. Indeed, the share of wholly and majority-owned foreign companies in the stock of outward FDI from Singapore reached 47.7 per cent in 1981 and although this share had been declining in the first half of the 1980s to reach a trough of 25.9 per cent in 1985, it climbed rapidly since to 33.6 per cent in 1989 and 56.4 per cent in 1993. Such high shares of foreign affiliates in the outward FDI of Singapore was closely associated with the history of Singapore as a British colonial entrepôt and a Crown colony since 1867 as well as the dominant role of foreign-based MNCs in the modern economic history of Singapore.

In terms of industrial distribution, outward FDI by Singapore by the end of the 1970s had been present in all the three major economic sectors—primary, secondary and tertiary. Outward FDI in manufacturing was spread over a broad range of industries that were either dominated by local capital or foreign capital. This included low technology, low value added industrial and product niches and industries typically intensive in the use of labour and natural resources to include food and drink, clothing, printing and publishing, plastic products, leather and rubber products, cement and concrete products (such as bricks, tiles, clay products, earthenware, glass and other non-metallic mineral products), fabricated metal products and transport equipment that were local capital-dominated industries in Singapore in the late 1970s and early 1980s. In addition, outward FDI in manufacturing also emerged in textiles, wood products, paper products and in higher technology and higher value added industries such as petroleum products and electrical and non-electrical machinery that were foreign capital-dominated industries in
Singapore in the late 1970s and early 1980s. Apart from outward FDI in manufacturing, outward FDI from Singapore was also significant in services in the period around the late 1970s and early 1980s. This was indicative of the dominant position of services in the GDP of Singapore at more than 71 per cent in 1979 (based on data in Huff, 1995) owing to the small size of the economy and its historical position as a trade entrepôt (Mirza, 1986). The most important service sectors of Singapore-based FDI had been civil engineering and construction, the marine industry (ship repair services, shipbuilding, oil rig construction, as well as marine engineering and related industries), hotels and construction, trading and property development.

The even more rapid expansion of outward FDI from Singapore in the 1980s relative to previous decades had been accompanied by significant changes in its industrial and geographical patterns. This owed much to the swift process of domestic industrial restructuring towards higher value added manufacturing starting around the late 1970s and in services associated closely with efforts of Singapore to promote itself as an international centre for offshore banking, finance and other services especially trading, transport and communications from around the early 1970s (see Mirza, 1986). Manufacturing and services continued to be the most important economic sectors of Singapore-based MNCs relative to the primary sector. Owing to the success of domestic industrial upgrading of the Singapore economy, outward FDI in manufacturing at the end of the 1980s was spread over a far broader range of older and newer industries by comparison to the end of the 1970s with the range of industries continuing to encompass those that were dominated by either local capital or foreign capital in Singapore. The 1980s also witnessed the further growth of outward FDI in services by major state-owned enterprises such as Singapore Airlines (which has expanded into finance) and Keppel Shipyards (presently involved in retail banking, international finance and insurance), among other state-owned companies. By the 1990s, the most important industries of Singapore-based outward FDI in declining order of significance were finance, manufacturing, commerce, property and business services.

As for geographical destination, some 77 per cent of the stock of outward FDI by Singapore in the end of the 1970s and early 1980s had been concentrated in the developing countries of Asia, with some 64 per cent in South East Asia. Less than 5 per cent was directed to the developed countries mainly in the United Kingdom and the United States but there had also been some investments in the Netherlands, other Europe and Japan. By 1989, some 67 per cent of the stock of outward FDI by Singapore continued to be directed towards the developing countries of Asia with some 39 per cent in South East Asia, while 16 per cent was directed to the developed countries, showing the increased importance of outward FDI in New Zealand, Europe (particularly the Netherlands and the United Kingdom) and the United States and directed largely towards property and property development. By 1993, the share of the stock of outward FDI by Singapore directed towards the developing countries of Asia further declined to 54 per cent with some 28 per cent in South East Asia, while the share directed to developed countries increased further to 23 per cent.

In a manner typical of MNCs based in small countries such as Sweden and Switzerland
but not Hong Kong whose outward FDI was fundamentally of the export platform type, the major determinant of outward FDI by Singapore-based firms in manufacturing and services stemmed from the need to find new markets and investment opportunities and to sell their technological expertise. The main constraint to the growth of Singapore-based firms had been the limited size of the domestic market combined with growing protectionist policies in major export markets in the region. Besides limited growth in the domestic market and to sell technological expertise, another important determinant inducing international production particularly for state-owned firms in mature industries had been the need for diversification towards high-technology industries such as computers, microelectronics, robotics, biotechnology and genetic engineering. However, given that developed countries accounted for less than 5 per cent of the stock of Singapore-based FDI in the late 1970s and early 1980s, this factor carried far less weight in the determination of the outward FDI of Singapore in this period.

Although these determinants continued to be valid in explaining the growth of outward FDI in the 1980s, the expanding levels of outward FDI in that decade and particularly since 1986 had been spurred by the accelerated pace of wage increases in Singapore and the tightening labour market problem which owing to tighter foreign labour and immigration restrictions could no longer be relieved by unskilled labour importation as in the 1970s. By the 1990s, the rapid growth of Singapore-based FDI particularly within its region had been associated by the role of outward FDI as a means to overcome the vulnerabilities of Singapore to external shocks as displayed by the global economic recession in the mid-1980s which affected Singapore severely and, more importantly, to the dominant role of foreign capital in the domestic economy. A second major determinant of Singapore-based FDI in the 1990s which explain the growth of their FDI in the developed countries had been the need to diversify in high-technology industries. Indeed, there had been a significant increase in technology-related ventures by Singapore’s state-owned and government-linked companies in the Silicon Valley of the United States to support the dynamic comparative advantage of Singapore in semiconductors production.

Notes

1 Based on data contained in UNCTAD (1999).
3 Thus, as in the history of British MNCs, there was evidence in the case of Singapore-based MNCs of the presence of a migrating multinational coined by Jones (1986a). In the case of Britain, this was a company whose headquarters was based originally in one foreign country, invested in Britain and then evolved to become a British-headquartered MNC over time. Such was the case of Borax Consolidated Ltd (Travis and Cocks, 1984) and British-American Tobacco (BAT) (Jones, 1986a). This was similarly the case of Jack Chia MPH, Wah Chang International and Prima Flour that were companies established abroad by Chinese families that transferred their operations to Singapore in the 1970s and eventually became Singapore-based
MNCs. In addition, among the formerly foreign-owned companies that eventually become Singapore-based firms and MNCs were Wearne Brothers (originally a distributor of motor vehicles and equipment) and Fraser & Neave Ltd (a soft drinks company). Both companies were acquired by the Overseas Chinese Banking Corporation, one of the largest banks in Singapore (Pang and Komaran, 1985).

4 These published data are contained in Department of Statistics (1991, 1996). These contain annual data on outward FDI from Singapore as from 1976. The data on outward FDI refer to the amount of paid-up shares of overseas subsidiaries and associated companies held by companies in Singapore. Direct equity investment refers to direct investment plus the reserves of the overseas subsidiaries and associates attributable to these companies. For overseas branches, the net amount due to the local parent companies is taken as an approximation of the magnitude of direct investment.

5 Prior to the opening of the Suez Canal in 1869, ships often took the shortest route from Europe to East Asia via Java and Sumatra bypassing Singapore. With the opening of the Suez Canal, the strategic location of the island port of Singapore on the new route enabled it to serve as a conduit for exports from East Asia to Europe and manufactured goods in the opposite direction. Singapore’s entrepôt trade thus increased rapidly despite the challenge of Hong Kong after 1842 (Mirza, 1986).

6 The lack of resources to finance industrialization is, in fact, debatable. Although the ratio of savings to GDP was low at 6.7 per cent in the period between 1960 and 1966 thus limiting the amount of reserves to finance investment (based on data in Huff, 1995), most local firms were engaged in trading or banking at the cornerstone of Singapore’s industrialization in the 1960s (Lecraw, 1985; Yoshihara, 1976; Hughes and Yon, 1969). In addition, Singapore at the end of the 1950s had inherited from its entrepôt tradition an invaluable access to financial resources and market information as well as various forms of contacts within the region (Wong, 1979). Thus, it is difficult to comprehend why the Chinese immigrants in Singapore did not establish powerful alliances or guanxi with the Chinese business community in different countries of Asia to avail of business information as well as financial and marketing assistance. As seen in Chapters 10 and 14, these ethnic alliances enabled the Chinese to play an economic hegemonic role in the business and commerce of South East Asia, and the growth of Taiwanese MNCs and Hong Kong-based MNCs served to reinforce that hegemonic role.

7 In 1961, the Economic Development Board (EDB) of Singapore was established as a one-stop investment promotion agency to assist foreign firms in Singapore. This had been the main preoccupation of EDB until the 1990s. It has played a key role in shaping the Singapore economy and developing the industrial sector through its efforts in investment promotion and training of manpower (Low et al., 1993). The establishment of the Jurong Town Corporation (JTC) in 1968 represented another institutional structure to support the state’s strategy to rely on foreign capital for industrial development. It was primarily responsible for the construction and management of industrial estates as low-cost production sites for foreign manufacturing firms, the first of which was located in the Jurong Area. Both EDB
and JTC have been instrumental in attracting a large inflow of FDI into Singapore since the 1960s (Yeung, 1998).

By 1983, the state had invested directly in 58 diverse companies with a total paid-up capital of 2.9 billion Singapore dollars. These companies wholly or partially owned some 490 firms in Singapore (Huff, 1995). The state-owned firms and statutory boards amassed profits of 5 to 7 billion Singapore dollars in 1983 equivalent to a considerable third of total GDP or half of indigenous GDP (Mirza, 1986).

Based on data contained in the FDI database of UNCTAD.

Data obtained from Department of Statistics (1991) indicated that the stock of outward FDI from Singapore reached 1,677.7 million Singapore dollars in 1981. This was converted to United States dollars using the end-of-period exchange rate in 1981 obtained from the International Monetary Fund, *International Financial Statistics Yearbook 1998*, Washington, DC: IMF. The value of outward FDI stock from Singapore in United States dollars—$819 million in 1981—was then compared with the stock of outward FDI from Hong Kong ($148 million in 1980), South Korea (f 142 million in 1980), and Taiwan ($97 million) based on data contained in UNCTAD (1999).


Government policy since the 1960s to increase the share of savings to GDP went hand in hand with policies to increase the share of investment to GDP. The gamut of measures implemented to enforce this included low corporate and personal taxation, investment incentives for foreign and locally owned private firms, government investment, forced savings via the government-run pension plan to which employers and employees must contribute, the creation of an attractive investment climate through infrastructure and human resource development and tight control of labour costs and practices. The savings-investment gap was financed by borrowing from abroad and, most importantly, by inward FDI (Lecraw, 1985). Given this gap between domestic savings and domestic investment in the 1970s, it may in fact be debatable if the large amount of savings generated by the compulsory savings scheme could have financed outward FDI given that it had not even been enough to finance domestic investment.

The analysis was based on information on the significant manufacturing industries
of outward FDI around the end of the 1970s and early 1980s contained in Lecraw (1985) and Pang and Komaran (1985) and information on the industries dominated by local and foreign capital in 1982 contained in Mirza (1986). The finding that outward FDI by Singapore in the manufacturing sector had been in industries that were either dominated by local capital or foreign capital is at odds with the finding of Lecraw (1985) who argued that outward FDI by Singapore in the manufacturing sector had been concentrated largely in industries in which the share of inward FDI in Singapore was relatively low.

14 Data and information contained in Mirza (1986) indicate that construction and property are important sectors of state-owned enterprises in Singapore. There were 27 such enterprises in these sectors in the mid-1980s, of which 17 were already incorporated by 1979.

15 The internationalization of the state-owned company Acma Electrical Industries through outward FDI and arms-length technology contracts is an excellent case in point. Protected by tariffs in the 1960s and 1970s, Acma developed ownership-specific advantages in the production of refrigerators. However, the lifting of tariffs in the late 1970s led to the loss of its price competitiveness vis-à-vis imports, thus forcing the firm to seek foreign markets and sell its acquired technology. The range of its international business activities varied from the conclusion of technology contracts to produce refrigerators in Pakistan and Sri Lanka to the provision of technological assistance in Nigeria and Kenya for the assembly of refrigerators and airconditioners. It was only in China that the firm engaged in FDI through the establishment of a refrigerators plant, and had intentions to build another three factories in other provinces (Pang and Komaran, 1985).

16 Data obtained from Department of Statistics (1996) indicated that the stock of outward FDI from Singapore reached 13,621.7 million Singapore dollars in 1990. This was converted to United States dollars using the end-of-period exchange rate in 1990 obtained from the International Monetary Fund, International Financial Statistics Yearbook 1998, Washington, DC: IMF.


18 However, in certain cases the investment resulting in around 5 per cent of the equity ownership in a foreign holding company in turn resulted in the acquisition of significant equity stakes in companies of the holding company. For example, in one of its biggest investments abroad Singapore invested $465 million in May 1991 to acquire 5 per cent of Brierley Investments, a holding company in New Zealand. Such investment led Singapore to acquire significant equity stakes in a wider range of companies held by Brierley Investments in the United States and United Kingdom including Cummins Engine, La Quinta Motor Inns and Playboy Enterprises as well as 30 per cent of Brierley’s biggest holding, Mount Charlotte Investments which owned 104 hotels in Britain, including London’s White Hotel. See ‘Singapore goes global’, Fortune, 15 July 1991.


Foreign firms are defined to be firms that are wholly owned and majority owned by foreigners.

20 Based on data contained in Mirza (1986).

21 This included the acquisition of the Thanksgiving Tower in Dallas, Texas for $160 million in 1989. However, there were large investments in other industries such as food products as seen in the $52 million acquisition of the Chun King Oriental food line from RJR Nabisco in 1989. See ‘Singapore goes global’, *Fortune*, 15 July 1991.


23 Based on data and information on inward FDI in Malaysia contained in ADB (1988) and Tan *et al.* (1992) for data for the years between 1980 and 1990.

24 Calculated based on data on inward FDI in Indonesia contained in Lee (1990) for data for 1979, and in ADB (1988) and Tan *et al.* (1992) for data for the years between 1980 and 1990.


26 Over half of the 117 Singapore-owned firms with foreign operations in 1985 were minority joint ventures, and only 35 had wholly or majority-owned foreign subsidiaries. In China, the government defined specific modes of participation by foreign firms: processing and assembly, compensation trade, co-production, joint ventures and technology contracts (Pang and Komaran, 1985).

27 Based on data on the sectoral distribution of Singapore-based FDI in Indonesia, Malaysia, Philippines, Thailand and China at or around the end of the 1980s contained in UN, ESCAP (1988) and other sources. However, outward FDI in the primary sector continues to be important. For example, ECI Mineral of Singapore concluded a joint venture with the Burmese state-owned No. 3 Mining Enterprise to produce and market drilling-mud-grade baryte powder. Two other Singapore-based firms, Natsteel Trade International and Inotech Industries, have also concluded joint ventures in Burma to produce construction materials. See ‘Singapore firms set up joint ventures in Burma’, *Far Eastern Economic Review*, 18 April 1991.

28 Private sector enterprises have also engaged in large-scale outward FDI in services. This was the case, for example, with Hotel Properties Ltd (HPL), Singapore’s premier hotel and leisure concern. However, the direct investments abroad of the company were channelled through a series of holding companies registered mostly in Hong Kong and the British Virgin Islands. Through these foreign holding companies, HPL owns *inter alia* most of the Four Seasons hotels in the United States and Canada, the Sydney Hilton, a half stake in the Inn on the Park in London, and the Australian franchise for Hyundai cars. See ‘Suite dreams: Singapore hotelier in expansion drive’, *Far Eastern Economic Review*, 8 August 1991.

29 In a crude regression model relating outward FDI stock of Singapore (the dependent variable) and the monthly wage earnings in manufacturing in Singapore (the independent variable lagged by one year) in the period between 1980 and 1987,
I had found that B, the value of the coefficient of the independent variable, is positive as predicted confirming the positive association between the two variables. Moreover, 92 per cent of the variation in the values of outward FDI stock of Singapore in the period between 1981 and 1988 was accounted for, or explained by, a linear relationship with the values of the monthly wage earnings in manufacturing in Singapore and the regression equation was significant at the 99 per cent level. It would have been preferable to relate outward FDI stock of Singapore in manufacturing (the dependent variable) to the monthly wage earnings in manufacturing (the independent variable). However, such outward FDI data by sector was unavailable from the Department of Statistics of Singapore.

30 The Economic Development Board (EDB) initiated in 1988 the International Direct Investment Programme as a means of extending financial incentives to outward FDI that seek to gain access to advanced foreign technology, create high value added engineering and technical employment, provide access to overseas markets and expand the scope of domestic activities in Singapore. EDB offices abroad had also been given the task of assisting Singapore-based companies to find investment opportunities abroad. In addition, companies are also allowed tax write-offs for losses incurred in overseas ventures and in April 1989 it was announced that government equity partnership was available for Singapore-based firms wanting to engage in outward FDI (Chia, 1989).

31 Based on UNCTAD FDI database.


33 GLCs are state-owned firms that had been privatized since the mid-1980s but in which the state still retains significant influence over their management control (Yeung, 1998).

34 In full recognition of the important role of small- and medium-sized enterprises (SMEs) in surviving the economic recession in the mid–1980s, policy initiatives to promote the growth of the private sector became more concrete than ever before. This included the Local Industry Upgrading Program initiated in 1986 in which participating foreign-based MNCs in Singapore provide focused assistance to their local suppliers to upgrade their operations and become more competitive (Economic Development Board, 1991), the SME Master Plan published in 1989 and the revised Local Enterprise Finance Scheme announced in 1992 which provides low-cost loans for the purchase of equipment and industrial facilities needed for overseas operations. The most important document, however, has been the Strategic Economic Plan published in 1991 in which the state regarded locally based MNCs as one of the strategic tools in enabling Singapore to attain a fully developed country status. By 1992, there were over 60 such schemes and programmes addressing a broad spectrum of business needs (Economic Development Board, 1993). There were also a number of tax incentives to encourage local enterprises to invest abroad, and training programmes for key operators, supervisors and engineers to receive training in Singapore as well as study missions organized by industry associations or government agencies as well as the Economic Development Board and Trade
Development Board to develop an understanding of operating environments in foreign countries and the range of business opportunities available (Yeung, 1998).

35 See ‘Silicon implants: Singapore gambles on US technology ventures’, *Far Eastern Economic Review*, 6 February 1992. However, it had been reported that Singapore Technology Holdings Corporation was making losses in its operations in the United States in the production of wafers for integrated circuits (Hu, 1995).
16
Conclusion

The emergence and evolution of multinational corporations from the resource-scarce small countries

This part of the book analysed the emergence and evolution of resource-scarce small countries. In particular, it compared the growth of the MNCs from Switzerland, Hong Kong and Singapore. As in the previous parts of the book, the main rationale was to determine whether there exists a common pattern in the emergence and evolution of MNCs from resource-scarce small countries. The general conclusion that can be drawn is that there are some comparable patterns in the emergence and evolution of MNCs from the three countries that share a common pattern of national economic development based on their small size and natural resource scarcity which led to the high degree of outward orientation of their economies both through exports and outward FDI. Multinational corporations based in these countries share a common origin in international production in simple manufacturing that were intensive in the use of labour or natural resources (see Table 16.1). Despite the close similarity in the type of FDI in which MNCs from the three resource-scarce small countries emerged, there were important differences with respect to the types of firms that undertook the initial FDI, the actual development paths of outward FDI as it related to local industrialization in each country (Table 16.2) and the form of technological accumulation of leading national firms in relation to the natural course of outward FDI in each country (Table 16.3). This chapter seeks to reflect on the similarities and differences in the emergence and evolution of MNCs from the resource-scarce small countries.

The emergence of multinational corporations

The history of MNCs based in the three resource-scarce small countries have a common basis in simple manufacturing and particularly in the textiles industry in the case of both Switzerland and Hong Kong. The emergence of MNCs was associated closely with the important role of the textiles industry in domestic production and exports of the economies of Switzerland in the nineteenth century, in Hong Kong since the 1950s, and later in Singapore in the 1970s and 1980s. In Switzerland and Hong Kong, the outward FDI was initiated by individual adventurers or families with established interests in
the industry, and/or small- and medium-sized manufacturing companies. Perhaps a major difference between Switzerland and Singapore on the one hand and Hong Kong on the other lies in the domestic management of labour shortages and rising wages in labour intensive industries generally, the textiles industry inclusive. While outward FDI was but one aspect of a range of solutions adopted by Switzerland and Singapore to deal with its domestic labour market problem to include the employment of migrant workers, automation and specialization in more differentiated segments of the market or domestic industrial upgrading in more advanced manufacturing industries, there was little evidence that solutions other than outward FDI had been pursued in Hong Kong.

The determinants of international production in the textiles industry in the three

Table 16.1 Resource-scarce small countries: variations in the early stages of outward direct investment across different countries

<table>
<thead>
<tr>
<th>Examples of Dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td></td>
</tr>
<tr>
<td>Trade, commerce and banking</td>
<td>Prominent families</td>
</tr>
<tr>
<td>Insurance</td>
<td>Small insurance companies</td>
</tr>
<tr>
<td>Textiles (cotton, silk)</td>
<td>Individual adventurers or families with established interests in the industry; small- and medium-sized firms</td>
</tr>
<tr>
<td>Hong Kong</td>
<td></td>
</tr>
<tr>
<td>Manufacture of simple consumer goods (kerosene lanterns, flashlights, umbrellas and simple food products)</td>
<td>Manufacturing firms, small-and medium-sized</td>
</tr>
<tr>
<td>Textiles</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>British trading companies</td>
</tr>
<tr>
<td>Productive endeavours in the Malay peninsula to include rubber plantations, etc</td>
<td>Chinese immigrants in Singapore</td>
</tr>
<tr>
<td>Productive endeavours in the Malay peninsula in tin mining</td>
<td></td>
</tr>
<tr>
<td>Simple manufacturing in South East Asia to include food products</td>
<td>Indigenous manufacturing companies</td>
</tr>
</tbody>
</table>

Source: Author’s compilation based on the analysis contained in the country chapters.
countries have a common basis in the rapid loss of comparative advantage of the home country as a location for labour intensive production due to high production costs (associated with rising land costs and wages with industrial development and growth of labour productivity and shortage of semi-skilled and unskilled labour) and the imposition of tariffs and quotas in major export markets. Some subtle differences can, however, be detected in the relative importance of these factors as well as other factors for MNCs based in the three countries. In the period between 1750 and 1850–60, the lower cost of the factors of production in Italy primarily was probably the most critical factor in the relocation of production by individual Swiss adventurers or families with established interests in cotton manufacture and silk spinning (Wavre, 1988). The growth of these investments since 1850–60 owed much to the new Italian tariffs of 1 March 1888 which led to the significant decline in the value of Swiss exports to Italy, including cotton fabric. The imposition of more rigorous labour legislation in Switzerland in 1898, with the prohibition of employment of school children also forced the relocation to Italy of Swiss companies in silk spinning in the period around the turn of the twentieth century. On the other hand, the establishment of new foreign-based factories in the cotton industry just across the Swiss border in Southern Germany was caused by the formation of the German customs union in 1834 which threatened the continued growth of Swiss firms in a highly export-oriented industry.

By contrast, the initial thrust to the emergence of Hong Kong MNCs in textiles and clothing in the 1960s was provided by trade barriers imposed by important export markets in both developed and developing countries. The imposition of trade barriers was a response by developed countries to the phenomenal growth of Hong Kong’s manufactured exports and an instrument of import substitution industrialization in developing countries. Although the emergence of Hong Kong-based MNCs is rooted fundamentally in the imposition of tariffs and quotas which impinged upon the growth of its exports of manufactured products (the foundation of the Hong Kong economy), the further expansion of their international production activities beginning in the late 1960s became even more imperative owing to the additional motivation to minimize production costs, to relieve domestic supply shortages of semi-skilled and unskilled labour as well as to overcome increasing competition between domestic firms based in a small home market as well as the competition posed by the emergence of firms based in other Asian NICs that became significant producers and exporters of similar manufactured products (Table 16.2). Unlike that of Swiss MNCs and Singapore-based MNCs whose international production have largely been geared to local markets in host countries, export-oriented international production had always been the main focus of Hong Kong-based MNCs since their emergence associated with their mastery of technologies and long production experience in the assembly and manufacture of light consumer goods for exports and a large reservoir of entrepreneurial and export-marketing know-how and access to global distribution channels. Moreover, the main type of firm that initiated the manufacturing FDI of Hong Kong was small-and medium-sized manufacturing companies, almost all of which were privately owned (Pang and Komaran, 1985).
Table 16.2 Resource-scarce small countries: actual development paths for outward direct investment, and their association with local industrialization across different countries

<table>
<thead>
<tr>
<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>Historical position of the country as a trading, commercial and financial centre</td>
<td>Prominent families in trading, commerce and banking</td>
</tr>
<tr>
<td></td>
<td>Growth of domestic production and exports in the textiles industry.</td>
<td>Companies in insurance and reinsurance</td>
</tr>
<tr>
<td></td>
<td>International production fostered by the formation of the German customs union in 1843, foreign tariffs, high domestic wages and land costs, the imposition of more rigorous labour legislation in Switzerland in 1898 and the availability of raw materials</td>
<td>Individual adventurers or families with established interests in industry</td>
</tr>
<tr>
<td></td>
<td>Domestic industrial upgrading in processed metals</td>
<td>Small- and medium-sized manufacturing firms</td>
</tr>
<tr>
<td></td>
<td>Accumulation of expertise in mechanical engineering and electrical equipment allied to accumulated strengths of domestic firms in textiles and processed metal products.</td>
<td>Manufacturing firms, typically resource-based but fully internationally integrated</td>
</tr>
<tr>
<td></td>
<td>International production prompted by a strategy to penetrate foreign markets in durable goods, non-tariff trade barriers associated with buying practices of major customer groups abroad and differences in technical standards as well as high transportation costs</td>
<td>Manufacturing firms, horizontally integrating</td>
</tr>
</tbody>
</table>
Accumulation of expertise in the processing of agricultural commodities into manufactured food products protected by trademarks and patents, and the marketing of these products to the retail trade. International production prompted by a strategy to penetrate foreign markets, overcome trade barriers and to guarantee a steady supply at the retail level of essential food commodities by having a local presence.

Accumulation of expertise in the production of speciality chemicals and pharmaceutical products. International production prompted by horizontally integrating a strategy to penetrate foreign markets, reduce risks and to overcome tariff and non-tariff barriers protection accorded to pharmaceuticals and chemicals in foreign markets.

Expertise and long experience in the management of hotels.

Established reputation in banking, finance and insurance.

The transfer to Hong Kong from Shanghai of industrial capital and managerial expertise in textiles production led to the installation of modern factories combining new production machinery and cheap refugee labour. This made textiles become the core of the industrial development of Hong Kong in the 1950s, an industry that had from its inception a high export propensity and formed the basis of Hong Kong’s export-led growth. Such export expansion was facilitated by the existence in Hong Kong of some 1,000 to 1,500 trading houses previously involved in the entrepôt trade with well entrenched export links with British and other export markets. Exports of textiles faced tariffs and quotas in the 1960s.

<table>
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<tr>
<th>Examples of countries</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>The emergence and growth in the late 1950s of domestic production and exports of electronics.</td>
<td>Electrical and electronics companies</td>
</tr>
</tbody>
</table>
International production initiated by the defence of export markets which imposed protectionism in the mid–1970s as well as the minimization of production costs. Since the late 1960s and 1970s international production as a means to minimize production costs, to relieve domestic supply shortages of semi-skilled and unskilled labour, and to overcome the increasing competition between domestic firms in Hong Kong as well as the growth of emerging competition from firms based in the Asian NICs.

International production as a means to develop industries that have been of little or no significance to the economy of Hong Kong owing to its limited size, lack of natural resources, wood, etc., or environmental considerations.

Historical position of the country as an entrepôt facilitated by the local establishment of large British companies in the banking and finance, trading and services industries starting in 1841. Deindustrialization and the country’s small size led to the development of the services sector and the transformation of the former British colonial entrepôt into a leading trading and financial centre.

The requirement of timber as a raw material for the domestic furniture manufacturing industry.

The requirement of the domestic economy and firms for advanced foreign technologies and to obtain

Manufacturing firms in textiles, clothing, electrical and electronics, plastics and toys and other labour intensive industries.

Manufacturing firms in chemicals, metal products, limited size, lack of natural resources, wood, etc.

Services firms (trading, banking, finance, insurance, construction, tourism, etc.)

Manufacturing firms engaged in backward vertical integration; free-standing companies or investment companies that treat FDI as a form of portfolio investment.

Manufacturing firms
more secure access to the parts, components and semi-manufactures for the assembly production in Hong Kong of some electronics products and watches.

**Singapore**

Its history as a British colonial entrepôt and a British Crown colony since 1867 that was used as a base for the economic expansion of the British empire in Malaya, South East Asia and China until the Second World War.

The dominant role of foreign based British trading companies in the modern economic history of Singapore led to the use of Singapore as a base for the growth of their outward FDI in South East Asia and China.

The development of Singapore as an international financial centre, the presence of a strong domestic currency, domestic political and macroeconomic stability, the relatively liberal financial regime as well as a safe haven for some excess savings of countries in South East Asia has also made the country an important financial base from which foreign companies launch outward FDI in the region.

The dominant role of state-owned and government-linked companies in the domestic economy of Singapore owing to the neglect of local Chinese entrepreneurs for social, economic and political reasons.

### Examples

**Link between domestic development and the growth of outward FDI**

<table>
<thead>
<tr>
<th>Development of local firms in low technology, low value added industrial and product niches and industries intensive in the use of</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of local firms in low technology, low value added industrial and product niches and industries intensive in the use of</td>
<td>State-owned companies in manufacturing and services</td>
</tr>
</tbody>
</table>
labour and natural resources to include food and drink, clothing, printing and publishing, plastic products, leather and rubber products, cement and concrete products, fabricated metal products and transport equipment which made these industries local capital-dominated industries in the late 1970s and early 1980s. International production was a means to overcome the main constraint to growth posed by the limited size of the domestic market and the growing protectionist policies in major export markets in the region. The development of textiles, wood products, paper products, petroleum products and electrical and non-electrical machinery as foreign capital-dominated industries in Singapore in the late 1970s and early 1980s. The small size of the domestic economy and its historical position as a trade entrepôt led to the increasing dominant role of services in the GDP of Singapore in the late 1970s and early 1980s. The prominent position of Singapore in oil refining and petrochemicals manufacturing and as the largest oil services centre in Asia. This fostered the growth of outward FDI in oil exploration in China and Australia. The need for diversification towards State-owned companies
high technology industries such as computers, microelectronics, robotics, biotechnology and genetic engineering

Swift process of domestic industrial restructuring towards higher value added manufacturing starting around the late 1970s. This led to the growth of domestic and international production in more advanced manufacturing industries. The accelerated pace of wage increases and tightening domestic labour market associated with more restrictive foreign labour and immigration regulations in the 1980s that affected adversely labour intensive manufacturing industries

The development of Singapore as an international centre for offshore banking, finance and other services especially trading, transport and communications from around the early 1970s

<table>
<thead>
<tr>
<th>Stages of national development</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form of technological competence of leading indigenous firms</td>
<td>Basic engineering skills, complementary organizational structures</td>
<td>More sophisticated engineering practices, basic scientific knowledge</td>
<td>More science-based advanced engineering, organizational structures reflect needs of business, technology, and society</td>
</tr>
</tbody>
</table>

Source: Author’s compilation based on the analysis contained in the country chapters.
Unlike Switzerland in the nineteenth century and Hong Kong since the 1960s, textiles and clothing was never a prominent feature of the export pattern of Singapore. The dominance of food products in some of the earliest outward FDI from Singapore in South East Asia in the 1950s was superseded by the end of the 1970s in outward FDI in a broad range of manufacturing industries that were either dominated by local capital or foreign capital. This included low technology, low value added industrial and product niches and typically industries intensive in the use of labour and natural resources to include food and drink, clothing, printing and publishing, plastic products, leather and rubber products, cement and concrete products, fabricated metal products and transport equipment that were local capital-dominated industries in Singapore in the late 1970s and early 1980s. In addition, outward FDI in manufacturing also emerged in textiles, wood products, paper products and in higher technology and higher value added industries such as petroleum products and electrical and non-electrical machinery that were foreign capital-dominated

<table>
<thead>
<tr>
<th>Type of outward direct investment</th>
<th>Trading, commerce, banking, insurance, labour intensive and natural resource intensive manufacturing</th>
<th>Resource-oriented, market-targeted or export-integration into manufacturing and services</th>
<th>Research-related investment and research-related investment and integration into international networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial course of outward direct investment</td>
<td>Simple manufacturing and services</td>
<td>Growth of manufacturing industries targeted to local markets or complex international systems, export-oriented manufacturing; growth of services investment</td>
<td>More sophisticated manufacturing industries targeted to local markets or complex international systems, export-oriented manufacturing; growth of services investment</td>
</tr>
<tr>
<td>Stage of development</td>
<td>Switzerland between 1750 and 1860–70 and the Second World War</td>
<td>Hong Kong late 1950s and mid 1970s since 1980s, but currently still unreached</td>
<td>Singapore between 1960s and 1970s since 1980s, but currently still unreached</td>
</tr>
</tbody>
</table>

Source: Author’s compilation based on the analysis contained in the country chapters.
industries in Singapore in the late 1970s and early 1980s. The different industries in which foreign or local capital dominated reflected the difficulties faced by local firms to penetrate the higher value added industries owing to their lack of technology, experience, entrepreneurship and size (Mirza, 1986). Thus, there were at least five types of firms that led Singapore-based manufacturing FDI at the end of the 1970s and early 1980s: foreign affiliates in Singapore undertaking outward FDI in the region, foreign companies using Singapore as a financial base to launch outward FDI, state-owned companies or government-linked companies in manufacturing and services, privately owned manufacturing companies, and privately owned conglomerate companies.

Despite the pressures imposed by an increasingly tight labour market and rising wages in Singapore since the early 1970s, this had not been a major factor in the relocation of labour intensive operations offshore in the 1970s owing to the ready access to foreign labour under the government’s liberal worker policy (Chia, 1989). Instead, in a manner typical of MNCs based in small countries such as Sweden and Switzerland (later) but not Hong Kong whose outward FDI was fundamentally of the export platform type, the major determinants of international production by Singapore-based firms at the end of the 1970s had been to overcome the main constraints to growth posed by the limited size of the domestic market by the search for new markets and investment opportunities abroad as well as to resolve the growing protectionist policies in major export markets in the region.

There is, however, an analogous pattern of development in the geographical destination of the early outward FDI in manufacturing in the three countries. In all the three countries, outward FDI was focused on host countries that had close geographical proximity and cultural affinity to the home country. These were Germany, France and Italy in the case of Swiss FDI (Schröter, 1993). Their close geographical and cultural links to Switzerland has facilitated the consideration of these countries as an extension of the home country market both in terms of their importance as the first export markets of Switzerland and as a site for the location of production of the early Swiss MNCs. Similarly, Indonesia, Malaysia, Singapore, Taiwan and Thailand and other countries of South East Asia, South Asia as well as Africa have been important foreign sites for production by Hong Kong’s textile manufacturers since the 1960s, and in China since 1978 (Mun and Chan, 1986). Some 77 per cent of the stock of outward FDI by Singapore at the end of the 1970s and early 1980s had also been concentrated in the developing countries of Asia, with some 64 per cent in South East Asia and in particular in Malaysia as the most prominent host country (based on data in Department of Statistics, 1991). The dominant role of South East Asia and China in the outward FDI of both Hong Kong and Singapore is explained not only in terms of close geographical proximity but also by the familiarity of both these countries with the economic, social and political conditions of Asian countries, gained in part through the historical roles of Hong Kong and Singapore as entrepôts for trade and commerce as well as financial centres in South East Asia. In addition, the outward FDI attributable to indigenous Chinese firms in Hong Kong and Singapore can be regarded as parallel to the expansion through outward FDI of indigenous Chinese firms in Taiwan to avail of the socially and culturally embedded networks of relationships or guanxi with the Chinese business community in different
countries of South East Asia and China which provided business information as well as financial and marketing assistance (Granovetter, 1985, 1991; Granovetter and Swedberg, 1992). These regional business networks based on contacts spanning almost a century and close familial relations have provided strength to Chinese business organizations and paved the way for their economic hegemonic role in the business and commerce in the region (see also Wong, 1991). The emergence and growth in South East Asia of indigenous Chinese MNCs based in Taiwan, Hong Kong and Singapore only served to reinforce that hegemonic role.

The evolution of MNCs

Despite the common origins of the MNCs based in the three resource-scarce small countries in simple manufacturing, the evolution of their outward FDI while sharing some similarities particularly with respect to MNCs based in Switzerland and Singapore also display some notable differences. The closest similarity in the pattern of MNC evolution in the three countries derive from the rapid growth in dominance of the services sector in their respective home economies and in outward FDI. While in the case of Switzerland this phenomenon can be explained in the context of its post industrialization status, it is certainly also the case that Switzerland, Hong Kong and Singapore have large internationally oriented service industries because of their small size and historical position as entrepôts for trade in Europe and South East Asia both of which favoured a greater emphasis on the development of the services sector in their domestic industrialization strategies which led to the prominent role of the sector in gross domestic product and outward FDI.

The closest parallelism can be drawn in the growth and development of outward FDI in trading, banking, finance and insurance in all three countries. In the case of Switzerland, this arises from the country’s well-entrenched historical position as a trading, commercial and financial power (Bergier, 1968). This was favoured by the country’s central geographical location on major European trade routes and political neutrality that allowed its firms to benefit from the maintenance of commercial contacts with each of the major European power centres (France, Germany and Great Britain) even during times of conflict. Its central location in Europe and well-entrenched position in trading and commerce in turn helped to foster its expertise in banking and insurance (Porter, 1990). The importance of general business services and personal services for Switzerland generally and as important industries of Swiss FDI also proceed from the highly advanced pattern of domestic demand for these services associated with the high per capita income of the Swiss economy and its position as a location of the regional headquarters of foreign firms and international organizations.

There had been two waves in the growth of the services sector in the history of Swiss MNCs: the first wave is identified with the pioneering roles of trading, commerce and banking in Swiss FDI by prominent Swiss families and in insurance by small companies. The second wave began in the decade of the 1960s with the multinationalization of firms in the banking, finance, insurance and other services industries. As a result, the share of
the services sector in the stock of recent Swiss FDI has increased steadily from a share of more than 30 per cent in 1986, some 32 per cent in 1987 (Bürgenmeier, 1991), 38 per cent in 1988 and 56 per cent in 1997 (UNCTAD, 1999).

In an analogous fashion, the services sector has also been a prominent feature in the growth of Hong Kong MNCs since the 1980s and enjoys a steady growth. These were mainly in hotels, property, trading, leisure services, construction, and banking and financial services (Chen, 1983b). In the period since 1986, their FDI in services (mainly in banking and finance, hotels and distribution) in the developed countries (primarily in United States, United Kingdom and France) have grown in a significant way through large-scale acquisitions of domestic firms in those countries. The growth of significant outward FDI in banking and financial sectors by Hong Kong in particular is resonant of the growth and development of Swiss MNCs in these sectors and draws from a similar historical position of Hong Kong as an entrepôt for trade in its region facilitated by the local establishment of large British companies in the banking and finance, trading and services industries starting in 1841 with the inception of Hong Kong’s colonial history. The process of deindustrialization combined with the country’s small size also led to the growth of the domestic economy as a services-based economy and its transformation from a British colonial entrepôt into a leading trading and financial centre in the region (Ho, 1992). The growth of Hong Kong’s outward FDI in the other services industries (hotels, property, leisure services, construction) is linked to the development of Hong Kong as a services-based economy (Table 16.2).

The services sector has likewise been fairly significant for the economy of Singapore and its MNCs. As in Hong Kong, the importance of FDI in services is closely associated with a similar historical position of Singapore as a British colonial entrepôt and a Crown colony since 1867 which made the country a base for the economic expansion of the British empire in Malaya, South East Asia and China until the Second World War as well as base for Britain’s military expansion in East Asia until the late 1960s. Indeed, many British companies, including Boustead and Co., Simon and Paterson and Guthrie and Co., can trace their origins and early prosperity back to the beginnings of Singapore’s role as an entrepôt (Mirza, 1986). In more modern times, Singapore has progressed beyond its traditional role as a British colonial entrepôt to fulfil a more complex and sophisticated role as a centre for trading, transportation, communications, industrial, commercial and financial services in South East Asia (Lim, 1990). Among the service industries in which Singapore-based MNCs have emerged and evolved were infrastructure development, construction, trading, marine industry (ship repair services, oil rig construction, marine engineering, etc.), property and property development, finance, and management and consultancy services. Unlike in the case of Switzerland and Hong Kong where almost all of the outward FDI in services have been generated by firms in the private sector, there were at least five types of firms that initiated and led Singapore-based services FDI in the 1980s and 1990s: foreign affiliates in Singapore undertaking outward FDI in the region, foreign companies using Singapore as a financial base to launch outward FDI, state-owned companies or government-linked companies in manufacturing and services, privately owned manufacturing companies, and privately owned conglomerate companies. Indeed, Singapore’s conglomerate firms—Jack Chia-MPH, Wah Chang
International, Haw Par Brothers, Intraco, Joo Seng Group and Keck Seng Group—have engaged in international operations as trading companies in the initial phases of their companies’ history, long before their diversification towards the manufacturing sector (Lim, 1984).

Another distinctive feature in the growth of MNCs from the three resource-scarce small countries—that is unlike that of MNCs from the resource-scarce large countries—is the relatively lower significance of outward FDI in resource extraction particularly for MNCs from Hong Kong and Singapore. The outward FDI of resource-scarce large countries in resource-related activities was provoked by a necessity: the demand of domestic processing industries and consumers for minerals, energy, other raw materials and agricultural products that either did not exist in the home country or were available in inadequate amounts to support industrialization or meet domestic consumption. By contrast, a similar shortage of most natural resources and the need to import most raw materials as well as energy in Hong Kong and Singapore did not precipitate high levels of outward FDI to search for, and gain control over, sources of natural resources in resource-rich foreign countries apart from the resource-based investments to extract timber in Indonesia by Hong Kong-based firms to support the growth of the domestic furniture industry (described further below) and the earlier productive endeavours in the Malay peninsula in rubber plantations by the British trading companies based in Singapore and in tin mining by Chinese immigrants in Singapore during the British colonial period. This stems from the specialization of their economies in a narrower range of industries that did not involve the large-scale development of domestic processing industries. The marked exception is Switzerland that spawned highly successful firms such as Alusuisse-Lonza, von Roll, Georg Fischer and other firms in the processed metal products industries which enabled those industries to count as one of a broad range of industries in which Switzerland developed a highly competitive position. Unlike in the resource-abundant small country of Sweden, these strengths in metals processing cannot be attributed to the relatively few natural resources that Switzerland possesses, with the exception of its capability to generate relatively inexpensive hydroelectric power useful in the reduction of alumina to aluminium (see the case study of Alusuisse in Chapter 13).

By contrast, to the extent that there had been resource-based investments by Hong Kong-based firms which represented the backward vertical integration of manufacturing companies in resource extraction as an important means to stabilize supplies and costs associated with the instability of market prices for tropical timber (Wells, 1978), in most cases the timber extractive investments in Indonesia were accounted for by individuals or business groups which although based in Hong Kong either did not have parent companies in Hong Kong or had parent companies in Hong Kong in entirely different lines of business (Chen, 1981). Indeed, the resource extractive FDI in timber extraction that were mostly accounted for by investment companies based in Hong Kong had tended to regard FDI as a form of portfolio investment (Chen, 1981; Wells, 1978) to gain monopoly rents or minimize business risks through the diversification or entry into new business activities.

Beyond the analysis of the common grounds in the emergence and evolution of MNCs from the resource-scarce small countries lies the examination of major differences that
exist between the three countries. One such difference arises from the wider breadth of industries that Swiss and Singapore-based MNCs have evolved into by comparison to MNCs from Hong Kong. Considering the manufacturing sector alone, Swiss MNCs have emerged first in textile industries of cotton, silk and straw in the eighteenth century as mentioned, and then evolved in the nineteenth and twentieth century in processed metal products, machinery, electro-technical and electro-chemical industries, processed food products (milk products, baby foods, chocolates, jams and preserves), speciality chemicals and pharmaceuticals, paper and graphics and so forth. Similarly, as mentioned there had been a wide breadth of manufacturing industries in which Singapore-based MNCs have emerged by the late 1970s and the swift process of domestic industrial restructuring towards higher value added manufacturing industries starting around the late 1970s meant that the outward FDI in manufacturing at the end of the 1980s and through the 1990s was spread over a far broader range of older and newer industries even if it continued to encompass those industries in Singapore that were dominated by either local capital or foreign capital.

Despite the wide scope of domestic industrial diversification and outward FDI in manufacturing in both Switzerland and Singapore, there were fundamental differences in the types of firms that initiated international production and the determinants of such international production in the two countries. The evolution of Swiss FDI in manufacturing has been led in the main by privately owned domestically based manufacturing firms engaging in horizontal integration in foreign markets in response to both a home-country specific factor (to overcome the limited size of the domestic market through the search of new markets and business opportunities abroad) as well as host country-specific factors (tariff and non-tariff trade barriers in major export markets, high transportation costs, the need for a local presence to guarantee effective market penetration and servicing, reduce risks, etc.). In Singapore, on the other hand, there were at least four types of firms that led Singapore-based FDI in the wide range of manufacturing industries at the end of the 1980s and through the 1990s: foreign affiliates in Singapore undertaking outward FDI in the region, state-owned companies or government-linked companies in manufacturing and services, privately owned manufacturing companies, and privately owned conglomerate companies. Although the expansion of Singapore-based MNCs in manufacturing in the 1980s continued to be driven as in the case of Swiss MNCs by the need to overcome the limited size of the domestic market and to expand production and service capacity, a major factor propelling the growth of outward FDI in the 1980s and particularly since 1986 had been the accelerated pace of wage increases in Singapore and the tightening labour market problem which owing to tighter foreign labour and immigration restrictions could no longer be relieved by unskilled labour importation as in the 1970s (see also Aggarwal, 1986, 1987; Chia, 1989; Hill and Pang, 1991). Thus, it seems that home country-specific factors played a more important role in explaining the growth of Singapore-based FDI in manufacturing than was the case for Switzerland.

By contrast, Hong Kong has a much narrower range of manufacturing industries that constitute its manufacturing sector. Clothing and textiles accounted for more than 52 per cent of Hong Kong’s exports of manufactured goods in 1961, and such share had
declined to only 44 per cent by 1987. To the extent that there had been some diversification of the manufacturing sector of Hong Kong, it is evident in the increased importance of two other labour intensive industries in the country’s exports of manufactured goods: electronics whose share increased from 2.5 per cent in 1961 to almost 23 per cent in 1987 and watches, clocks and other precision instruments whose share increased from 0.7 per cent in 1961 to 8.7 per cent in 1987 (based on data in Hong Kong Trade Statistics, various issues). The case of Hong Kong is particularly distinctive in its concentration in the export-oriented manufacture of labour intensive products in both domestic and international production, with some limited evidence towards specialization in the domestic textiles and clothing industry in the more differentiated segments of the market.

Since the differences in the breadth of industries that MNCs from the three resource-scarce small countries does not cut along the divide between developed and developing countries, a more fundamental explanation has to be sought outside the framework of the stage of economic development attained by the home country. Indeed, other more relevant explanations for the difference may have to be gleaned from the demand conditions in the home country, government macro-organizational policies pursued in achieving industrial development generally (including the more dirigiste role of the government of Singapore versus the more laissez faire role of the government of Hong Kong in industrial development) and other country-specific factors (such as cultural diversity) which has tended to differentiate the three countries other than the different stages of their economic development.

The peculiar nature of Swiss demand conditions has supported a remarkably broad base of competitive industries for a small nation which has contributed both to the resilience of the Swiss economy, and the wide scope and continuity in the pattern of its MNC growth. To overcome the small size of the domestic market, Swiss firms deliberately chose to operate in highly specialized and highly productive industry segments. The multi-cultural environment of Switzerland along with the emphasis placed on regarding the neighbouring countries of Germany, France and Italy as extensions of the home country market has provided an invaluable window through which Switzerland discerned evolving product needs and widened the range of sophisticated buyers in close contact with Swiss industry, both of which enabled domestic firms based in Switzerland to develop extraordinary strengths in a much broader range of industries than would be expected for a small nation. Cultural diversity may account for the wider breadth of advantage in Swiss domestic industry and MNC activity not only in comparison to the lesser developed, small countries of Hong Kong and Singapore but also in comparison to another developed, small country such as Sweden that similarly lacks such industrial diversity. The greater industrial diversity of Switzerland also helps to explain its greater need to overcome the limitations posed by the domestic market owing to its small size or the lack of natural resources through international production which facilitates access to larger foreign markets and primary raw materials.

Apart from the broader breadth of Swiss industrial development, another feature that distinguishes Switzerland from the lesser developed resource-scarce small countries such as Hong Kong and Singapore is the source of competitiveness of the country and its
constituent firms. The products of Swiss industry—whether manufacturing or services—have generally been focused on quality or based on extensive R&D and technical expertise (Schröter, 1993). The broad breadth of Swiss industries that are technologically advanced helps to explain both the much larger scale of their outward FDI, and the greater propensity of the leading companies in those industries to engage in international production should exports prove incapable to fulfil, or continue to fulfil, foreign demand. By contrast, the products of indigenous firms based in Hong Kong and Singapore derive their competitiveness from lower cost labour or access to such lower cost labour. The indigenous firms in the Asian city states demonstrate relatively weaker capabilities in capital intensive industries and more technology intensive industries. This arises from the more non-interventionist policy of the government of Hong Kong in industrial development as mentioned but even the more dirigiste role of the government of Singapore has not made the benefits of rapid domestic industrial upgrading affect local firms. A major explanation for this can be found in the dominant role assigned to foreign capital to attain rapid industrialization and economic growth in Singapore particularly in more advanced manufacturing and services industries to the detriment of local entrepreneurs or indigenous capitalists whose potential contribution was neglected owing to social, economic and political reasons (Régnier, 1993).

In Hong Kong, not only has the non-interventionist policy of the government in industrial development tended to mitigate the importance of expenditures on R&D by both the public and the private sectors but also the peculiar pattern of domestic demand as well as export market demand for lower-quality, mass produced consumer goods. Notwithstanding the narrow scope of its domestic manufacturing sector, however, Hong Kong became the world’s tenth-largest source country of FDI in the world economy in 1998 after the United States, United Kingdom, Germany, Japan, the Netherlands, France, Switzerland, Italy and Canada and the leading source of outward FDI from developing countries. The fact that its international production activities remained predominantly in the export-oriented manufacture of labour intensive products has not, in any way, made Hong Kong-based MNCs less successful controllers and coordinators of an international network of income-generating assets. Their mastery of technologies and long production experience in the assembly of labour intensive goods strongly reinforced by their ownership advantages in export marketing, stable relationships with major suppliers and access to global distribution channels have provided Hong Kong-based firms a unique, distinctive and sustainable competitive edge to maintain a leading role in labour intensive manufacturing over time, and in spite of the growth of other developing countries that have developed greater comparative advantages in labour intensive manufacturing.

Thus, in relating stages of national development to the form of technological competence of leading indigenous firms, the type of outward FDI and its industrial course over time, MNCs from Hong Kong and Singapore are at a much earlier stage of development compared to the more advanced MNCs from Switzerland, despite the similarity in some patterns of their MNC growth (see Table 16.3).
Notes

1 Exports of textiles and clothing from Hong Kong were subject to the quotas by developed countries prior to the establishment of the Multi-Fibre Arrangement (Chen 1981, 1983b). Similarly, in the late 1960s, tariff barriers were imposed by many South East Asian countries that pursued import substitution industrialization (UN, ESCAP, 1988).

2 This helps to explain the unique strengths of the French part of Switzerland in consumer goods, and that of the German part in precision machinery and chemically related industries. Similarly, owing to its extensive business dealings with Germany itself, Switzerland has been prone to adopt German technical and environmental standards, not having a national standards setting agency in its own country. Since German standards are tough, further beneficial pressures on the demand side are created in affected Swiss industries (Porter, 1990). Indeed, the home market of both the Swiss machine-building industry and the chemical industry includes Germany. It is for these reasons that Switzerland is considered a special case of Porter’s home nation-based theory (Borner et al., 1991).
Part V
Conclusion
This book analysed the emergence and evolution of MNCs. In particular, it sought to test the hypothesis whether variations exist in the pattern of the early stages of outward FDI across different types of countries and in their developmental paths over time that are determined by distinctive patterns of national economic development. Such unique patterns of national economic development derive from different endowments of natural resources, different sizes of the domestic market and different types of development path pursued in achieving industrial development. Three country groups were described: resource-abundant countries, resource-scarce large countries (with resource intensive production) and resource-scarce small countries (with non-resource intensive production). The organization of countries in these groups facilitates the identification of the dominant form of earliest outward FDI and the developmental course or path of outward FDI over time with the changing forms of technological competence of leading indigenous firms.

The research hypothesis was tested on the basis of 11 case studies of MNCs based in 11 countries. These countries were Brazil, Germany, Hong Kong, Japan, Singapore, South Korea, Sweden, Switzerland, Taiwan, United Kingdom and the United States. These 11 home countries, comprising six developed countries and five developing countries, accounted collectively for two-thirds of the global stock of outward FDI in 1998. The six developed countries accounted for an equivalent share of the stock of outward FDI of the developed countries in 1998, while the five developing countries accounted for 69.5 per cent of the stock of outward FDI of the developing countries (based on data in UNCTAD, 1999). The selection of these 11 home countries of widely divergent national characteristics was necessary to demonstrate the relevance of the inter-relationships between the emergence and the evolutionary process of outward FDI and distinctive patterns of national economic development and to advance the development of a comprehensive theory of the emergence and evolution of MNCs on the basis of general principles.

This concluding chapter sets out those general principles. The reader is invited to refer back to the concluding chapters of the various parts of the book for more detailed and refined analysis of the emergence and evolution of MNCs based on distinctive patterns of national economic development. (Chapters 6, 12 and 16).
Variations in the early stages of outward direct investment across different types of country

The findings of the research confirm the general validity of the hypothesis that patterns of national economic development determine the emergence and evolution of MNCs. However, the precise form of the relationship varies among the country groups.

Resource-abundant countries

The earliest outward FDI of MNCs based in the resource-abundant countries has tended to predominate in one of two principal activities. The first principal activity has been in resource extraction and sometimes resource processing in agriculture, forestry, petroleum or minerals in resource-rich host countries. The emergence and expansion of outward FDI in the extraction and processing of natural resources can be linked to the presence in the home country of rich and abundant natural resources which enabled indigenous firms to develop management and organizational skills and technologies in natural resource extraction and processing which were exploited profitably abroad. The second principal activity in their earliest outward FDI has been the establishment of sales and production subsidiaries in large foreign markets by firms in the engineering industries comprising metal manufactures, machinery and transport equipment in which firm-specific knowledge has been generated from an abundance of mineral resources in the home country (Table 17.1). The research findings on the early stages of outward FDI by MNCs in the resource-abundant countries thus support the validity of the hypothesis contained in Table 1.1 describing the dominant form of the earliest outward FDI in these countries.

Resource-scarce large countries

The dominant form of the earliest outward FDI of MNCs based in the resource-scarce large countries has also been in resource extraction and sometimes resource processing in agriculture, forestry, petroleum or minerals in resource-rich host countries. However, the driving factor behind this early outward FDI in MNCs based in the resource-scarce large countries differed fundamentally from that in MNCs based in the resource-abundant countries. Outward FDI in resource-based activities by MNCs in the resource-scarce large countries was provoked by the demand of domestic processing industries for minerals, energy and other raw materials and the demand of domestic consumers for agricultural produce. Owing to the resource scarcity of these countries, these vital needs of industries and consumers either did not exist in the home country or were available in inadequate amounts to support industrialization and domestic consumer demand. The shortage of natural resources in the large economies of the United Kingdom, Germany, Japan, South Korea and Taiwan became the driving force to search and gain control over new or additional sources of natural resources in resource-rich foreign countries. This explains much of the FDI by firms from the United Kingdom and Germany in the
nineteenth century, as well as those of Japan in the 1950s and South Korea and Taiwan in the 1960s and 1970s.

So important was this objective for the United Kingdom that among the oldest British MNCs were ‘free-standing’ firms, i.e. firms which did not undertake any prior production in the home country before investing abroad but were created primarily for the purpose of undertaking resource-related business exclusively or mainly abroad. This was a prominent feature of the emergence of British MNCs (Wilkins, 1988a) which was not evident in the emergence of MNCs from Germany, Japan, South Korea and Taiwan where for the most part resource-related overseas activities were undertaken by manufacturing firms, trading companies and even banks (as seen in the historical oil-related activities of Deutsche Bank).

Apart from resource-related activities, manufacturing was also an important sector in the origins of MNCs from the five resource-scarce large countries although the manufacturing FDI that emerged across the five countries in the kinds of industries that spawned the earliest MNCs, the kinds of firms that initiated international production, the determinants of such international production and their principal host countries.

The international production of a significant number of British manufacturing MNCs emerged in branded consumer goods (Dickens, 1992; Chandler, 1986) which was a reflection to a large extent of the comparative advantages of the United Kingdom in labour intensive, capital neutral and human capital-scarce products (Crafts and Thomas, 1986) and the technological hegemony of the United Kingdom in the industries associated with the First Industrial Revolution. These were textiles or textiles-related industries and consumer goods industries intensive in the use of natural resources. By contrast, the industries that spawned the earliest German FDI in manufacturing were the new, skills intensive, technically advanced and fast growing industries of the Second Industrial Revolution in the late nineteenth century: chemicals, pharmaceuticals, machinery, electro-technical and motor vehicles. The emergence of Japanese MNCs, Taiwanese MNCs and South Korean MNCs in manufacturing bear a closer resemblance to the pioneering British MNCs in their concentration in industries reflecting a comparative advantage in labour intensive, capital neutral and human capital-scarce products rather than in the higher technological intensity of the early German MNCs. The emergence of the outward FDI of Japan in manufacturing perhaps bears the closest similarity to that of the United Kingdom in their common basis in textiles or textiles-related industries.

Table 17.1 Variations in the early stages of outward direct investment across different types of country

<table>
<thead>
<tr>
<th>Categorization of National Development</th>
<th>Case Studies</th>
<th>Dominant Form of Early, Outward-Based MNC FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-abundant United States</td>
<td>Resource Extraction in Agriculture, Resource-Based Firms</td>
<td></td>
</tr>
</tbody>
</table>
Sweden
Brazil
minerals or petroleum in resource-rich host countries
Resource processing, distribution and marketing
Installation of mercantile houses overseas as well as foreign branches of local merchants overseas
The establishment of trading foreign sales branches to promote exports
Local market-oriented production in large host countries
Railroads construction
Manufacturing firms, backwardly integrating
Resource-based firms
Colonial merchants

<table>
<thead>
<tr>
<th>Categorization of national development</th>
<th>Country case studies</th>
<th>Dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-scarce large countries</td>
<td>United Kingdom</td>
<td>Resources extraction and processing and associated service investments to support domestic industrial expansion and to meet domestic consumer needs</td>
<td>Free-standing firms</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Japan</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Taiwan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>South Korea</td>
<td></td>
<td>Firms in manufacturing, petroleum and trading, backwardly integrating</td>
</tr>
</tbody>
</table>
Agriculturally based investments based on entrepreneurial perceptions of profitable investment opportunities
Trading investments in major export markets to promote the growth of exports
Local market-oriented manufacturing production in response to trade barriers
International production in small-to medium-scale labour intensive manufacturing in response to rise of domestic wages and other production costs in the home country

<table>
<thead>
<tr>
<th>Categorization of national development</th>
<th>Country case studies</th>
<th>Dominant form of earliest outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-scarce small countries</td>
<td>Switzerland</td>
<td>International production in labour intensive manufacturing for local or export markets</td>
<td>Individual adventurers or families; small- and medium-sized firms in manufacturing</td>
</tr>
<tr>
<td></td>
<td>Hong Kong</td>
<td>Trade, commerce and banking Insurance</td>
<td>Prominent families</td>
</tr>
<tr>
<td></td>
<td>Singapore</td>
<td></td>
<td>Small companies</td>
</tr>
</tbody>
</table>

Source: Author’s compilation based on the analysis contained in the country chapters.
As to the kinds of firms that initiated international production in the resource-scarce large countries, although some of the historical British manufacturing FDI were initiated by free-standing companies and trading companies such as Jardine Matheson & Company that established the Ewo Cotton Spinning and Weaving Company in Shanghai before 1914 (Wilkins, 1986b), direct capital exports of the United Kingdom consisted more of the establishment of foreign subsidiaries and branches by manufacturing companies already operating in their home countries—essentially the kind of foreign activity of the modern classic MNCs which mainly predominates in modern times (Dunning and Archer, 1987). The German firms that initiated manufacturing FDI were also predominantly large manufacturing firms in industries producing the newest and most technologically advanced products whose emergence can also be attributed to the rapid development of administrative hierarchies in German business organizations (Wilkins, 1988b). As in the German case, manufacturing firms were also solely responsible for the earliest Taiwanese manufacturing FDI. These firms were often the largest firms in their respective industries (Schive and Hsueh, 1985) but were perhaps not as large as the pioneering German or British manufacturing companies. By contrast, two types of firms initiated Japanese and South Korean manufacturing FDI: manufacturing companies and trading companies. The emergence of Japanese FDI in manufacturing were initiated by the cotton spinning companies and trading companies thus bearing a closer similarity to the types of firms that generated the earliest British manufacturing FDI.

The determinants of international production by firms from the five resource-scarce large countries in both the traditional and modern industries have a common basis in the inability of important foreign markets to be supplied, or supplied as cheaply, through exports. The precise reason for the inadequacy of arms-length trade to service foreign markets differed across the five countries. In the case of the United Kingdom, import restrictions imposed by the host governments more often than not was the key element that rendered exports uncompetitive in foreign markets. Indeed, imported manufactured products faced higher tariffs in the United States, Canada and most European countries after 1880 (Jones, 1996). By contrast, the determinants of the earliest international production by German manufacturing MNCs was spurred by a more complex set of factors. In the chemicals industry, the major determinants were the imposition of tariffs and non-tariff barriers to trade in Russia and the United States as well as stringent patent legislation in foreign countries that required the initiation of local production after a period of time and in an extreme case the French patent law of 1844 which did not allow the patenting of any type of medicine. In the electro-technical industry, the establishment of foreign factories was often initiated as a consequence of the need to have a local presence to service the needs of foreign markets more adequately (as in the case of the establishment and maintenance of a telegraph network in Russia by the German firm, Siemens), the growing pressures from the Russian administration which insisted on domestic production for continuing state orders of public utilities [the case of Allgemeine Elektricitäts-Gesellschaft (AEG)], the subsidies extended by the host country states to domestic producers that use parts and components made solely in the host country, and the need to respond to the requirement for domestic production of components used for racing cars participating in certain racing events in Great Britain (the case of Bosch that
initiated international production in France and the United Kingdom of magneto ignitions for cars and trucks). In addition, the high cost of freight and the 45 per cent tariff on the value of magnetos led to the construction of a magneto factory in Springfield, Massachusetts in 1910 where production started in 1912 (Hertner, 1986a).

The determinants of the switch from exports to international production in the case of the pioneering Japanese MNCs in manufacturing in the cotton textiles industry stemmed from the Shimoneseki Treaty of 1895 which allowed foreigners to manufacture in Chinese treaty ports for the first time. The consequent establishment of foreign-owned cotton spinning factories in China by British trading companies such as Jardine Matheson & Company and three foreign textile firms from Great Britain, the United States and Germany (Wilkins, 1986b) combined with the incipient growth of Chinese investments in spinning mills, and the sale in China of cheap Indian yarn posed a threat to the continued growth of the Chinese export market for both Japanese cotton spinners and trading companies. In addition, much of the Japanese FDI in China in the early twentieth century may have been made initially to ascertain local costs of production in China and to keep close watch over the Chinese textile market. This contrasts with the case of the pioneering British and German manufacturing MNCs in which there was little reason to suppose that lower production costs abroad influenced the initiation of outward FDI before 1914 since international production seldom occurred in very labour intensive industries, and hence low labour costs abroad were rarely an enticement.

The predominant motivations behind international production of the earliest Taiwanese MNCs and South Korean MNCs were on a class of their own. Given their concentration on processing industries and heavy and chemical industries, the earliest manufacturing projects initiated by Taiwanese and South Korean firms was determined by the search for markets, the security of export markets and access to abundant raw material supplies, cheaper energy and land costs.

In general, the host countries of the earliest FDI in manufacturing in the five countries were their major export markets, a finding that provides broader empirical support for the product cycle model of Vernon (1966) in explaining the initiation of international production by American MNCs in their major export markets. The strong ownership-specific advantages of British and German MNCs and the high income elasticity of demand for their export products formed the basis for the establishment of international production in developed host countries. By contrast, the geographical destination of the earliest international production activities by Japan, Taiwan and South Korea was directed towards developing countries of South East Asia and China predominantly, and can be explained by the early stage of national development at which Japan, Taiwan and South Korea engendered MNCs of their own and thus the more simple ownership-specific advantages possessed by the leading domestic firms.

Apart from outward FDI in resource-based activities and in manufacturing, the scarcity of natural resources of the five countries and the consequent large dependence on international trade as both an engine and handmaiden of economic growth led to a common emergence of a domestically based infrastructure in support of trade—banks, shipping companies, marine insurance companies and, above all, trading companies—which emerged rapidly as MNCs.
Although the research findings on the early stages of outward FDI by MNCs in the resource-scarce large countries validates the hypothesis contained in Table 1.1, which describes the dominant form of the earliest outward FDI in these countries to be in local market-oriented and trade-related activities, this would need to be broadened *inter alia* to include resource-based extraction and processing (see Table 17.1 for a complete picture).

### Resource-scarce small countries

The dominant form of the earliest outward FDI of MNCs based in the resource-scarce small countries has been in labour intensive manufacturing (particularly textiles) for local or export markets and in services (in particular trade, commerce, banking and insurance) associated with the strategic geographical locations of their home countries in Europe and Asia and the development of their domestic economies as centres for trading, commerce and finance. The emergence of MNCs was closely associated with the important role of the textiles industry in domestic production and exports of the economies of Switzerland in the nineteenth century, in Hong Kong since the 1950s, and later in Singapore in the 1970s and 1980s. In Switzerland and Hong Kong, the outward FDI was initiated by individual adventurers or families with established interests in the industry, and/or small- and medium-sized manufacturing companies. The determinants of international production in the textiles industry in the three countries have a common basis in the rapid loss of comparative advantage of the home country as a location for labour intensive production due to high production costs (associated with rising land costs and wages with industrial development and growth of labour productivity and shortage of semi-skilled and unskilled labour) and the imposition of tariffs and quotas in major export markets. There is also an analogous pattern in the geographical destination of the outward FDI in the textiles industry in the three countries. In all three countries, the outward FDI in the textiles industry in particular, and labour intensive manufacturing industries in general, was focused on host countries that had close geographical proximity and cultural affinity to the home country. These were Germany, France and Italy in the case of Swiss MNCs, and countries of South East Asia and China in the case of MNCs based in Hong Kong and Singapore.

However, despite the similarity in the industrial and geographical patterns of early outward FDI in the textiles industry in particular and labour intensive industries in general, the market orientation of these investments has differed between MNCs based in Switzerland and Singapore on the one hand and MNCs based in Hong Kong on the other. Since the early pattern of outward FDI in the textiles industry by Switzerland has tended to be concentrated in the very export markets threatened by import duties (Italy) and the formation of a customs union (Germany), and a similar protectionist trend in South East Asia had tended to precipitate the initiation of Singapore-based FDI in manufacturing, the early forms of international production of these firms have been geared largely to local markets in host countries. On the other hand, international production of MNCs based in Hong Kong in neighbouring countries has been essentially of the export platform type as a means of overcoming high domestic production costs and to overcome the high trade barriers imposed by their major export markets in the developed countries. Export-
oriented international production had always been the main focus of Hong Kong-based MNCs since their emergence associated with their mastery of technologies and long production experience in the assembly and manufacture of light consumer goods for exports and a large reservoir of entrepreneurial and export-marketing know-how and access to global distribution channels.

In sum, although the research findings on the early stages of outward FDI by MNCs in the resource-scarce small countries confirm the validity of the hypothesis contained in Table 1.1 which describes the dominant form of the earliest outward FDI in these countries to be in export-oriented and service-based activities, this would need to be expanded to include import substitution as an early form of international production (see Table 17.1).

Development paths for outward direct investment, and their association with local industrialization across different types of country

Resource-abundant countries

The emergence and evolution of manufacturing firms and MNCs based in the three resource-abundant countries derive from cumulative strengths in the engineering industries comprising metal products, machinery and transportation equipment (Table 17.2). This finding holds regardless of the size of the home countries concerned or its stage of development. The basis of their affinity is the abundance of mineral resources in the three countries which fostered a well-entrenched tradition of industrialization based on metals processing, the technical and metallurgical know-how of which spilled over into related sectors of the engineering industry such as machinery and transport equipment.

Apart from the common emergence of manufacturing MNEs in the engineering industry broadly defined, the process of international expansion of firms in this industry has been fairly common, despite the seemingly disparate attempts to model such process in the case of American metallurgical companies and Swedish engineering companies by Wilkins (1970) and Johanson and Wiedersheim-Paul (1975), respectively (see Chapter 6). Four stages were described by Wilkins (1970). In the first stage, the domestic concern sold abroad through independent agents (through an export person or export or commission houses in the home country) or on occasion filled orders directly from abroad. In general, companies frequently started to export using the facilities of international trading firms. In the second stage, the company appointed a salaried export manager, an existing export agency and its contacts, or independent agencies in foreign countries to represent the company. In the third stage, the company either installed one or more salaried representatives, a sales branch or a distribution subsidiary abroad, or it purchased a formerly independent agent located in a foreign country. At this point, for the first time, the company made a foreign investment. In the fourth stage, a finish-ing, assembly or manufacturing plant might be established to meet the needs of a foreign market (Wilkins, 1970).
Despite the broad analogy in the process of international expansion of American and Swedish firms in the manufacturing sector, two main factors differentiate the American and Swedish models. Firstly, the first stage described in the American model of exports being handled by independent agents or international trading firms was often bypassed in the Swedish case. This was owing to the needs of high-quality Swedish steel mills and the new industrial Swedish companies based on mechanical engineering to establish direct contacts with foreign markets by employing company-appointed representatives or agents or travelling salesmen (Hörnell and Vahlne, 1986) owing to increased product differentiation (e.g. production of special steel versus ordinary steel), and the necessity to have intimate knowledge of market developments and to adapt products to customers’ particular needs (Carlson, 1977). Secondly, by comparison to the United States that is another resource-rich country of a larger size, Sweden and other small countries in general have had earlier forays into international markets through exports (Swedenborg, 1979) associated with their offensive and aggressive strategy to overcome the limited size of their domestic markets.

Another common pattern in the growth of MNCs from the three resource abundant countries lies in the importance of the mining sector, once again a feature of the presence of rich and abundant mineral resources in the three countries which enabled American, Swedish and Brazilian firms to develop management and organizational skills and technologies in mineral resource extraction and processing which were exploited profitably abroad. Indeed, mineral extraction and processing featured at some stage in the history of the growth of MNCs based in the three resource-abundant countries; however, this type of investment assumed the highest prominence in the case of the United States and one that emerged at an early stage of development of American MNCs.

Despite the presence of a seemingly common pattern of emergence of MNCs based in the three resource-abundant countries, some fundamental differences arise in the pattern of evolution between MNCs based in the resource-abundant large countries of United States and Brazil and MNCs based in the resource-scarce small country of Sweden. Multinational corporations from the resource-abundant large countries have evolved in a wider breadth of industries by comparison to MNCs from the resource-abundant small countries. Considering the manufacturing sector alone, American MNCs have emerged first in metallurgical industries as mentioned, and then evolved in the 1920s in industries that competed on the basis of product differentiation (such as food and drink, textiles and clothing), as well as in industries with distinctive products. American industries with worldwide technological leadership gained from the transfer abroad of techniques in product design, engineering and organization of production (electrical industry, motor vehicle industry, certain metal products, petroleum), as have companies with

<table>
<thead>
<tr>
<th>Categorization of national</th>
<th>Link between domestic development and the growth of locally based</th>
<th>Type of</th>
</tr>
</thead>
</table>

Table 17.2 Actual development paths for outward direct investment, and their association with local industrialization across different types of country

Multinational corporations 412
<table>
<thead>
<tr>
<th>development</th>
<th>outward FDI</th>
<th>MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-abundant</td>
<td>Related diversification from resource extraction towards downstream processing (i.e. metal processing, wood products, petroleum processing and petrochemicals, agribusiness, etc.) International production in metallurgical industries resulting from the rapid development of domestic technologies, sometimes linked with mass production Growth of international production in other manufacturing firms, typically industries as a result of expansion of domestic firms and industries with trade-marked or branded merchandise or firms with distinctive products and techniques in product design, engineering and organization of production or advanced marketing methods. International production was prompted by prospects of profitable business opportunities in the host country which could not be fulfilled by exports Further industrial upgrading towards the services sector in the domestic economy and associated growth of exports and outward FDI in services</td>
<td>Resource-based firm Manufacturing firm Manufacturing firms, typically exporting firms Manufacturing firms, typically exporting firms</td>
</tr>
<tr>
<td>countries</td>
<td></td>
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</tr>
<tr>
<td>Categorization of national development</td>
<td><strong>Link between domestic development and the growth of outward FDI</strong></td>
<td><strong>Type of locally based MNC</strong></td>
</tr>
<tr>
<td>Resource-scarce</td>
<td>Changing comparative advantage of the home country for labour intensive activities as wages rise following productivity growth Domestic industrial upgrading and export growth in processing industries, in industries related to new technology</td>
<td>Manufacturing firms. small-and medium-sized firms Free-standing firms</td>
</tr>
<tr>
<td>large countries</td>
<td></td>
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</tr>
</tbody>
</table>
consumer needs and in fabricating industries embodying greater capital- and technology intensity and sometimes linked with mass production

Further industrial upgrading towards the services sector in the domestic economy and associated growth of exports and outward FDI in services

Resource-scarce small countries
Position of the home country as Prominent families, trading companies, banks and financial institutions

Growth of domestic production Manufacturing firms, small-and medium-sized
and exports in simple manufacturing typically labour intensive industries leading to international production due to trade barriers in major export markets, rising production costs, shortage of domestic labour or restrictive legislation in the home country

<table>
<thead>
<tr>
<th>Categorization of national development</th>
<th>Link between domestic development and the growth of outward FDI</th>
<th>Type of locally based MNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-scarce small countries (continued)</td>
<td>Domestic industrial upgrading in a broad range of industries both capital intensive and technology intensive, some of which are protected by trademarks and patents Limited opportunities for growth due to the small size of the domestic market Development of their home countries as service economies</td>
<td>Manufacturing firms, horizontally integrating Manufacturing firms and services firms, searching new markets International service firms, banks and financial institutions</td>
</tr>
</tbody>
</table>
advanced marketing methods (motor vehicle industry, metal products, petroleum). The kinds of American manufacturing enterprises that invested abroad in later decades closely resembled the investors of earlier years: these were leading firms in their industries in the United States that had advantages in technology, unique products and a long history of international economic orientation. The fact that an industry was technologically advanced did not ipso facto guarantee large FDI, but it generally meant that leading companies in that industry would in time, after finding exports could not continue to fulfill foreign demand, show an interest in extending their investments abroad. The American companies whose entrepreneurs exhibited far-sighted leadership grew rapidly and made the most far-ranging investments in foreign countries (Wilkins, 1974). These features describe consistently the growth of American MNCs over time, particularly in the manufacturing sector.

By comparison, Swedish manufacturing MNCs have had a narrower industrial focus in the engineering industry generally and, to a lesser extent, in the pulp and paper industry. Despite their narrower industrial focus, Swedish firms in these industries are technologically intensive, have distinctive products and a longer history of international economic orientation compared to the United States owing to their small country status. Many Swedish firms have become world leaders in their product niches on the basis of product design, engineering and organization of production and advanced marketing methods.

Although Brazilian manufacturing MNCs—like those of the United States and other large countries generally—have also been involved in a wide breadth of industries to include food products, textiles, clothing and footwear, paper packaging, wood and furniture, bicycles, lifts, electrical products, steel products and capital goods, motor vehicle parts, and aircraft, these firms do not compete on the same basis as American or Swedish manufacturing MNCs. Although Brazilian manufacturing firms in the metalworking, mechanical engineering and electrical equipment industries have fairly advanced foundry skills and skills in the organization of production, these firms did not feature prominently in trademarked or branded merchandise widely advertised in Brazil. In fact, as the experiences of some Brazilian MNCs such as Copersucar and Gradiente Electronics showed, some of the outward FDI was geared to penetrate the markets of developed countries by acquiring an established trade name abroad. Neither has any Brazilian industry or firm attained significant worldwide technological leadership (the closest it had achieved was the approach to the world technological frontier where this was fairly stable in some metalworking and mechanical engineering industries) nor developed sophisticated technological advantages and advanced marketing methods.

The research findings on the pattern of evolution of MNCs based in the resource-abundant countries thus support the validity of the hypothesis contained in Table 1.2 describing the potential development path for outward direct investment, and their association with local industrialization for this group of countries. The more detailed
**Resource-scarce large countries**

Despite the common origins of the MNCs based in the five resource-scarce large countries in certain types of outward FDI, the evolution of their outward FDI while sharing some similarities particularly with respect to MNCs based in Japan, Taiwan and South Korea have also some notable differences. At the broad sectoral level, the rapidly growing importance in recent decades of the services sector in the domestic economies of the United Kingdom, Germany and Japan has been reflected in the sectoral pattern of their outward FDI. By contrast, the manufacturing sector remains the dominant sector of economic activity in the outward FDI of both Taiwan and South Korea, a reflection once again of the earlier stage of their national economic development.

However, it is in the manufacturing sector where some of the most important changes have taken place in the evolution of MNCs based in the five resource-scarce large countries in the course of their history. International production by British manufacturers has essentially remained oriented towards the mature, relatively low technology sectors whose competitiveness emanate from the large British market with high income: large size, established technological strengths, product differentiation, quality, and marketing and managerial skills and experience. These characteristics favoured the continuing pre-eminent role of consumer goods firms as British MNCs during the inter-war years and for much of the period since the Second World War. As a result, British MNCs still have not featured prominently in the more modern and growth-oriented fabricating industries, but the few that emerged have been the most active in pursuing more rationalized or efficiency seeking FDI since the 1970s associated with an increasing amount of intra-firm trade and product and process specialization.

By contrast, the high technological intensity that has always consistently described German manufacturing MNCs throughout the course of their history stems from the position of Germany as the birthplace of modern science in the late nineteenth century (Porter, 1990). This helped the country to develop a deep scientific and technical knowledge base drawing on an abundance of skilled workers and professionals which proved instrumental in their efforts to upgrade domestic industry in the new, skills intensive, technically advanced and fast growing industries of the Second Industrial Revolution in the late nineteenth century.

The evolution of Japanese MNCs in manufacturing is in many respects *sui generis* in the growth of modern MNCs. Although the origins of Japanese MNCs can be traced to the late nineteenth century, the early pattern of Japanese FDI remained essentially the same from the period prior to 1914 through to the inter-war period. The early stage of domestic industrial development in which Japan generated MNCs of their own explains why Japanese MNCs from the period of their emergence until the Second World War did not derive their ownership-specific advantages from technological strengths and organizational competence, the possession of brand and trademarks and the ability to supply high quality, differentiated goods which described the manufacturing MNCs from the United Kingdom and Germany since their emergence in the nineteenth century.
However, the period since the Second World War was associated with the rapid domestic industrial transformation of the Japanese economy accompanied by the rapid evolution of Japanese FDI in manufacturing. In this period more than ever before, Japan’s outward FDI was a crucial instrument or catalyst for the rapid process of domestic industrial upgrading (Ozawa, 1985; Kojima and Ozawa, 1985). The rapid industrial transformation from a concentration on the primary sector towards the secondary and tertiary economic sectors, and within the secondary sector from labour intensive light manufacturing and heavy and chemical manufacturing to knowledge intensive, fabricating assembly-based industries and mechatronics-based, flexible manufacturing of highly differentiated goods accompanied by a continual rapid rise in labour productivity and wages at the end of each phase have led to shifting patterns of production and trade competitiveness for Japanese manufacturing companies as well as evolving patterns of Japanese MNC activities.

To the extent that Taiwan manufacturing FDI and South Korean manufacturing FDI could be compared with that of Japan since the Second World War, the first and second phases of Japanese FDI in labour intensive manufacturing in textiles, sundries and other low wage goods (the first phase) and in heavy and chemical industries during the Ricardo-Hicksian trap stage of Japanese FDI (the second phase) had been transposed in the case of the history of both Taiwanese and South Korean manufacturing MNCs. This is associated with a prolonged dependency or sustained comparative advantage of both the Taiwanese and South Korean economy on labour intensive production until the late 1980s. Although both Taiwan and South Korea had reached the third phase of Japanese FDI in assembly-based, subcontracting-dependent, mass production in foreign markets in the same set of consumer durables industries—cars, consumer electronics and semiconductors—that have been at the core of the global strategies of the large Taiwanese manufacturing firms and the South Korean large conglomerate companies (chaebols) in the 1980s and 1990s. The South Korean chaebols much like their Japanese counterparts—the keiretsus—spearheaded the large-scale import substituting FDI of their countries geared to overcome trade restrictions in the developed countries. The emergence and growth of the chaebols and the keiretsus had been fostered by their respective governments in their effort to accelerate domestic industrial development in large-scale, complex and technologically advanced industries through high industrial concentration. Indeed, a common theme in the three resource-scarce large countries of East Asia is the leading role of their governments in directing shifts in their countries’ dynamic comparative advantage (see also Aggarwal and Agmon, 1990). Towards this end, the development of indigenous skills and technological capacities was emphasized, and growth was based on knowledge-based industries (Crawford, 1987). Where South Korea and Taiwan differ is in the pace in which domestic industrial development evolved towards more advanced industries. The smaller size of its domestic market and less interventionist role of the government of Taiwan in indigenous technological development at an early stage rendered the process of industrial upgrading to proceed at a slower pace in Taiwan compared to that in South Korea. Indeed, the technological depth and competitive prowess in which South Korea’s industry has developed is not observed in any other developing country (UN, TCMD, 1993a).

Despite the arrival of two Asian newly industrialized countries in the third
evolutionary phase of Japanese FDI in manufacturing, there are important differences between Japanese MNCs on the one hand and the South Korean and Taiwanese MNCs on the other. The broader range of more technologically advanced consumer durable goods produced by Japanese keiretsus in their international production networks worldwide from around the mid-1970s onwards combined with their advanced marketing capabilities (high brand name recognition, product differentiation, extensive distribution channels, high advertising and promotion expenditures, etc.) contrasted with the much narrower product range, less technologically advanced and far less advanced marketing capabilities of South Korean and Taiwanese MNCs in major foreign markets in the 1980s and 1990s.

These research findings on the pattern of evolution of MNCs based in the resource-scarce large countries are broadly consistent with the hypothesis contained in Table 1.2 describing the potential development path for outward direct investment, and their association with local industrialization for this group of countries. The actual development path is shown in Table 17.2 which incorporates some modifications to consider inter alia further industrial upgrading towards the services sector in the domestic economy consistent with the post-industrial status of most developed countries leading to the growth of exports and outward FDI in services.

**Resource-scarce small countries**

A common pattern of growth of MNCs from the three resource-scarce small countries lies in the importance of the services sector in outward FDI—a feature of the development of their home countries towards service-based economies. The closest parallelism can be drawn in the growth and development of outward FDI in trading, banking, finance and insurance in all three countries. In the case of Switzerland, this arises from the country’s well-entrenched historical position as a trading, commercial and financial power (Bergier, 1968). This was favoured by the country’s central geographical location on major European trade routes and political neutrality that allowed its firms to benefit from the maintenance of commercial contacts with each of the major European power centres (France, Germany and Great Britain) even during times of conflict. Its central location in Europe and well-entrenched position in trading and commerce in turn helped to foster its expertise in banking and insurance (Porter, 1990). The importance of general business services and personal services for Switzerland generally and as an area of Swiss FDI stem from the highly advanced pattern of domestic demand for these services associated with the high per capita income of the Swiss economy and its position as a location of the regional headquarters of foreign firms and international organizations.

In an analogous fashion, the services sector has also been a prominent feature in the growth of Hong Kong MNCs since the 1980s and enjoys a steady growth. These were mainly in hotels, property, trading, leisure services, construction, and banking and financial services (Chen, 1983b). In the period since 1986, their FDI in services (mainly in banking and finance, hotels and distribution) in the developed countries (primarily in United States, United Kingdom and France) have grown in a significant way through large-scale acquisitions of domestic firms in those countries. The growth of significant
outward FDI in banking and financial sectors by Hong Kong in particular is resonant of the growth and development of Swiss MNCs in these sectors and draws from a similar historical position of Hong Kong as an entrepôt for trade in its region facilitated by the local establishment of large British companies in the banking and finance, trading and services industries starting in 1841 with the inception of Hong Kong’s colonial history. The process of deindustrialization combined with the country’s small size also led to the growth of the domestic economy as a services-based economy and its transformation from a British colonial entrepôt into a leading trading and financial centre in the region (Ho, 1992). The growth of Hong Kong’s outward FDI in the other services industries (hotels, property, leisure services, construction) is linked to the development of Hong Kong as a services-based economy.

The services sector has likewise been fairly significant for the economy of Singapore and its MNCs. As in Hong Kong, the importance of FDI in services is closely associated with a similar historical position of Singapore as a British colonial entrepôt and a Crown colony since 1867 which made the country a base for the economic expansion of the British empire in Malaya, South East Asia and China until the Second World War as well as base for Britain’s military expansion in East Asia until the late 1960s (Mirza, 1986). In more modern times, Singapore has progressed beyond its traditional role as a British colonial entrepôt to fulfil a more complex and sophisticated role as a centre for trading, transportation, communications, industrial, commercial and financial services in South East Asia (Lim, 1990). Among the service industries in which Singapore-based MNCs have emerged and evolved were infrastructure development, construction, trading, marine industry (ship repair services, oil rig construction, marine engineering, etc.), property and property development, finance, and management and consultancy services. Unlike in the case of Switzerland and Hong Kong where almost all of the outward FDI in services have been generated by firms in the private sector, there were at least five types of firms that initiated and led Singapore-based services FDI in the 1980s and 1990s: foreign affiliates in Singapore undertaking outward FDI in the region, foreign companies using Singapore as a financial base to launch outward FDI, state-owned companies or government-linked companies in manufacturing and services, privately owned manufacturing companies, and privately owned conglomerate companies. Indeed, Singapore’s conglomerate firms—Jack Chia-MPH, Wah Chang International, Haw Par Brothers, Intraco, Joo Seng Group and Keck Seng Group—have engaged in international operations as trading companies in the initial phases of their companies’ history, long before their diversification towards the manufacturing sector (Lim, 1984).

Another distinctive feature in the growth of MNCs from the three resource-scarce small countries—that is unlike that of MNCs from the resource-scarce large countries—is the relatively lower significance of outward FDI in resource extraction, processing and associated service investments particularly for MNCs from Hong Kong and Singapore. This stems from the specialization of their economies in a narrower range of industries that did not involve the large-scale development of domestic processing industries. The marked exception is Switzerland that spawned highly successful firms such as Alusuisse-Lonza, von Roll, Georg Fischer and other firms in the processed metal products industries which enabled those industries to count as one of a broad range of industries in
which Switzerland developed a highly competitive position. Unlike in the resource-abundant small country of Sweden, these strengths in metals processing cannot be attributed to the relatively few natural resources that Switzerland possesses, with the exception of its capability to generate relatively inexpensive hydroelectric power useful in the reduction of alumina to aluminium (see the case study of Alusuisse in Chapter 13). The seemingly important role of some domestic resource intensive production in Switzerland does not support the generalization in Table 1.1 that resource-scarce small countries pursue non-resource intensive production in all cases, and hence such distinction has been deleted.

Notwithstanding the shared pattern of emergence of MNCs based in the three resource-scarce small countries in labour intensive industries and the textiles industry in particular and their common evolution in outward FDI in services, the further evolution of Swiss and Singapore-based MNCs in a wider breadth of manufacturing industries is distinctive and particularly remarkable in relation to MNCs from Hong Kong. Swiss MNCs have emerged first in textile industries of cotton, silk and straw in the eighteenth century, and then evolved in the nineteenth and twentieth century in processed metal products, machinery, electro-technical and electro-chemical industries, processed food products (milk products, baby foods, chocolates, jams and preserves), speciality chemicals and pharmaceuticals, paper and graphics and so forth. Similarly, there had been a wide breadth of manufacturing industries in which Singapore-based MNCs have emerged by the late 1970s and the swift process of domestic industrial restructuring towards higher value added manufacturing industries starting around the late 1970s meant that the outward FDI in manufacturing at the end of the 1980s and through the 1990s was spread over a far wider range of older and newer industries even if it continued to encompass those industries in Singapore that were dominated by either local capital or foreign capital.

Despite the wide scope of domestic industrial diversification and outward FDI in manufacturing in both Switzerland and Singapore, there were fundamental differences in the types of firms that initiated international production and the determinants of such international production in the two countries. The evolution of Swiss FDI in manufacturing have been led in the main by privately owned domestic-based manufacturing firms engaging in horizontal integration in foreign markets in response to both a home-country specific factor (to overcome the limited size of the domestic market through the search of new markets and business opportunities abroad) as well as host country-specific factors (tariff and non-tariff trade barriers in major export markets, high transportation costs, the need for a local presence to guarantee effective market penetration and servicing, reduce risks, etc.). In Singapore, on the other hand, there were at least four types of firms that led Singapore-based FDI in the wide range of manufacturing industries at the end of the 1980s and through the 1990s: foreign affiliates in Singapore undertaking outward FDI in the region, state-owned companies or government-linked companies in manufacturing and services, privately owned manufacturing companies, and privately owned conglomerate companies. Although the expansion of Singapore-based MNCs in manufacturing in the 1980s continued to be driven as in the case of Swiss MNCs by the need to overcome the limited size of the
domestic market and to expand production and service capacity, a major factor propelling the growth of outward FDI in the 1980s and particularly since 1986 had been the accelerated pace of wage increases in Singapore and the tightening labour market problem which owing to tighter foreign labour and immigration restrictions could no longer be relieved by unskilled labour importation as in the 1970s (see also Aggarwal, 1986, 1987; Chia, 1989; Hill and Pang, 1991). Thus, it seems that home country-specific factors played a more important role in explaining the growth of Singapore-based FDI in manufacturing than was the case for Switzerland.

By contrast, the much narrow range of manufacturing industries that constitute Hong Kong’s manufacturing sector explain the narrower breadth of industries that Hong Kong MNCs emerged and evolved. The domestic economy of Hong Kong continues to be dominated by the labour intensive production of clothing and textiles and to the extent that there had been some industrial diversification of the manufacturing sector, it is evident in the increased importance of two other labour intensive industries in the country’s domestic production and exports of manufactured goods: electronics and watches, clocks and other precision instruments whose share increased over the last 40 years.

Since the difference in the breadth of industries that MNCs from the three resource-scarce small countries does not cut along the divide between developed and developing countries, a more fundamental explanation has to be sought outside the framework of the stage of economic development attained by the home country. Indeed, other more relevant explanations for the difference may have to be gleaned from the demand conditions in the home country, government macro-organizational policies pursued in achieving industrial development generally (including the more dirigiste role of the government of Singapore versus the more laissez faire role of the government of Hong Kong in industrial development) and other country-specific factors (such as cultural diversity) which has tended to differentiate the three countries other than the different stages of their economic development (see Chapter 16 for further elaboration).

However, the source of competitiveness of the country and its constituent firms seems to cut along the divide between developed and developing countries. The products of Swiss industry—whether manufacturing or services—have generally been focused on quality or based on extensive R&D and technical expertise (Schröter, 1993). The broad breadth of Swiss industries that are technologically advanced helps to explain both the much larger scale of their outward FDI, and the greater propensity of the leading companies in those industries to engage in international production should exports prove incapable to fulfil, or continue to fulfil, foreign demand. By contrast, the products of indigenous firms based in Hong Kong and Singapore derive their competitiveness from lower cost labour or access to such lower cost labour. The indigenous firms in the Asian city states demonstrate relatively weaker capabilities in capital intensive industries and more technology intensive industries.

These research findings on the pattern of evolution of MNCs based in the resource-scarce small countries substantiate the hypothesis contained in Table 1.2 describing the potential development path for outward direct investment, and their association with local industrialization for this group of countries. The more detailed and complete description
of the actual development path is, however, contained in Table 17.2.

**Technological accumulation and the national course of outward direct investment**

Table 17.3 charts the course of the form of technological competence of leading indigenous firms according to stages of national development in relation to the corresponding types of outward FDI by distinctive groups of countries, its industrial course and the current stage of development of MNCs based in the 11 countries. Since the table was constructed on the basis of the research findings, it represents the authenticated version of the hypothetical Table 1.3 formulated at the beginning of the research.

A particularly striking feature of the research results reflected in the table is that regardless of observed variations in the pattern of the early stages of outward FDI across different types of countries as well as their developmental paths over time that are determined by distinctive patterns of national economic development, there seems to be some convergence in the type of outward FDI and the industrial course of outward FDI in the most advanced stages. Regardless of country type, MNCs from the more industrialized countries are commonly involved in more research-related investments in manufacturing and services and in the integration of their international networks in the type and industrial course of their outward FDI at later stages of their evolution. Such convergence has resulted partly from the cross-penetration of national markets by MNCs and the growing importance of the economies of large-scale production, cross-investments and intra-industry trade and production. Nevertheless, MNCs based in different countries have differed in the extent of their progression along a continuum between being nationally embedded MNCs and becoming more globally oriented MNCs (see also Lane, 1998).

The convergence in the type and industrial course of outward FDI of MNCs from the industrialized countries should not be confused with the notion that MNCs from different national origins have specialized in the same set of industries at the later stage of their evolution. Indeed, although there are certain industries that have truly become international industries by attracting sizeable amounts of outward FDI from MNCs of different national origins, the historical research on the emergence and evolution of MNCs in this study has shown that because firm-specific knowledge has been generated and sustained in industries in which each country has a comparative advantage to a relatively large extent, MNCs in different countries that have different comparative advantages have tended to emerge and specialize in different industries. Furthermore, the industrial course of their outward FDI over time have tended to be correlated closely with the upgrading of their home country’s domestic industrial structure consistent with the attainment of dynamic comparative advantage. Since a large part of firm-specific knowledge is learning by doing, there is no reason to justify any claim that the industrial distribution of FDI undertaken by MNCs of different nationality or its evolutionary course over time should necessarily be the same, despite the trend towards globalization.
of industries, cross-investments, intra-industry trade and production, and the common propensity of MNCs to engage in more research-related investments in manufacturing and services and to integrate their international networks in the later stages of their evolution. Indeed, there have been long waves in the industrial specializations of countries reflecting the stability in national industrial strengths which span many decades and sometimes even centuries.

If the above finding is true, then it would imply that the core competencies or ownership advantages of firms and MNCs during the period of their emergence and early evolution reflect the distinctive patterns of national economic development of their home countries, i.e. their natural resource endowments, the size of their domestic market and the type of development path pursued in achieving industrial development. However, during the later period of their evolution, the advantages of firms and MNCs become also determined to an increasing extent by firm-specific factors such as the extent of multinationality of firms and the nature of technological development which tend to favour the retention of advantages within each firm. In the framework of the eclectic paradigm of international production, more mature MNCs would derive their asset ownership advantages—their ownership or exclusive or privileged access to proprietary or intangible assets—not only from their home base but increasingly from their cross-border network of international production. This is the case particularly of knowledge- or learning-based firms with several home bases, as demonstrated in this research by some Swedish companies that benefit from cross-border product, process or technological specialization and learning from producing in different environments. Not only does the capacity of MNCs to generate asset ownership advantages expand, the firm also gains sequential ownership advantages of the transaction cost minimizing kind derived from the common governance of separate but inter-related activities located in different countries, and the way in which their assets are coordinated with assets of other firms and with the locational advantages of countries (Dunning, 1998). The specificities of innovation across locations and

<table>
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<tr>
<th>Stages of national development</th>
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<tr>
<td>(1)</td>
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<td>Form of technological competence of leading indigenous firms</td>
</tr>
</tbody>
</table>

Table 17.3 Technological accumulation and the national course of outward direct investment
### Type of outward direct investment

<table>
<thead>
<tr>
<th>Resource-abundant countries</th>
<th>Trading, railroads, early resource- and resource-oriented investment and market-seeking, services</th>
<th>More advanced resource-oriented investment and market-seeking, services</th>
<th>Research-related investment and integration into international networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-scarce large countries</td>
<td>Early resource-seeking, market-seeking or export-oriented investments in manufacturing and services</td>
<td>More advanced resource-oriented investment and export-oriented investments in manufacturing and services</td>
<td>Research-related investment and integration into international networks</td>
</tr>
<tr>
<td>Resource-scarce small countries</td>
<td>Trading, commerce, banking, insurance, labour intensive and natural resource intensive manufacturing</td>
<td>Resource oriented, market-targeted or export-oriented investments in more advanced manufacturing and services</td>
<td>Research-related investment and integration into international networks</td>
</tr>
<tr>
<td>Industrial course of outward direct investment</td>
<td>Trading, railroads, resource based (extractive MNCs or backward vertical integration), manufacturing, construction and consulting engineering</td>
<td>More forward processing of resources, or growth of fabricating industries for local markets or exports; growth of services</td>
<td>More sophisticated manufacturing and services systems, international integration of investments</td>
</tr>
</tbody>
</table>

### Stages of national development

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<th>(1)</th>
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<tbody>
<tr>
<td>Resource-scarce large countries</td>
<td>Resources based (extractive MNCs or backward vertical integration), simple manufacturing, trading, banking, insurance,</td>
<td>More forward processing of resources, or growth of fabricating industries for local markets or exports; growth of services</td>
</tr>
</tbody>
</table>
firms increases the complexity of the process of technological development of firms, while the intra-firm utilization of a distinctive type of technology generated within each firm explain the extension of the MNC network across national borders and the direct control of the MNC over such network as a whole (Cantwell, 1989a). Firm-specific factors thus account for the increase in the ownership advantages of MNCs over time, the growth in the complexity of the determinants of such ownership advantages and the convergence in the type and industrial course of outward FDI by MNCs of different national origins in the later stages of their evolution.

Indeed, firm-specific factors play an important role in enabling the exploitation of country-specific advantage as well as in enhancing it. By broadening its geographical scope, MNCs gain from the use of their unique line of technological development in new environments, while the exposure to new environments in turn extends the firm’s unique path of technology generation in new growth directions. As a case in point, the exploitation abroad of ownership advantages of British MNCs deriving from capital intensity—a relative source of advantage that is correlated with their national origin—has become possible with the large size and increasing efficiency of British MNCs in capital raising and allocation. These are firm-specific factors that increase directly with increasing geographical scope and extent of multinationality. At the same time, such country-specific advantage has been enhanced through the access gained by firms to international capital markets (Clegg, 1987). The convergence in the type and industrial course of outward FDI by firms of different national origins over time can be regarded in the context of the increased capacity and incentive of national groups of MNCs based in the more industrialized countries to increasingly resemble one another’s ownership

<table>
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<tr>
<th>transportation and construction</th>
<th>growth of services investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource-scarce small countries</td>
<td>Growth of fabricating industries targeted to local markets or more complex export-oriented manufacturing; growth of services</td>
</tr>
<tr>
<td>Services based and simple small manufacturing</td>
<td>More sophisticated manufacturing and services international integration of investments</td>
</tr>
</tbody>
</table>

Stages of development in the dawn of the twenty-first century and the third millennium

- Brazil
- Taiwan
- South Korea
- Hong Kong
- Singapore
- United States
- Sweden
- United Kingdom
- Germany
- Japan
- Switzerland

Source: Author’s compilation based on the analysis contained in the country chapters.
advantages as the degree and extent of their multinationality increases. Table 17.3 also sets out the current stage of development of MNCs from countries that constituted the case studies of the research. Multinational corporations based in different country groups have evolved at different paces regardless of distinctive patterns of national development. It is seen that the current stage of development achieved by MNCs from the 11 country case studies tend to be determined by the divide along developed and developing countries. Thus, in relating stages of national development to the form of technological competence of leading indigenous firms, the type of outward FDI and its industrial course over time, MNCs based in the developing countries remain at a much earlier stage of development compared to the more advanced MNCs from the developed countries, despite the more rapid pace in their emergence and in the evolutionary path of their outward FDI. At the dawn of the twenty-first century and the third millennium, there remains considerable scope for MNCs based in developing countries to catch up in the dynamic and cumulative process of international production.

Notes

1 This important finding serves to substantiate the hypothesis that there is no need to differentiate between resource-abundant large countries and resource-abundant small countries in analysing the emergence and evolution of their MNCs.
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